SITE REASSESSMENT REPORT

HALLIE TOWN LANDFILL
(WDNR License #1771)
Village of Lake Hallie, Wisconsin
U.S. EPA ID: WID981095920

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ABBREVIATIONS / ACRONYMS:

CERCLA = Comprehensive Environmental Response Compensation Liability Act of 1980
DCE = Dichloroethene
EPA = U.S. Environmental Protection Agency
ERP = Environmental Repair Program
ES = NR 140, Wisconsin Administrative Code, Enforcement Standard (for groundwater)
HTL = Hallie Town Landfill
mg/kg = milligrams/kilogram
MCL = EPA Maximum Contaminant Level (for drinking water)
PA = Preliminary Assessment
PAL = NR 140, Wisconsin Administrative Code, Preventive Action Limit (for groundwater)
PCE = Tetrachloroethene (aka Perchloroethene)
PCS = Pre-CERCLIS Screening
RCL = Residual Contaminant Level
SARA = Superfund Amendments and Reauthorization Act of 1986
SR = Site Reassessment
TAL = Target Analyte List
TCE = Trichloroethene
TCL = Target Compound List
µg/L = micrograms per Liter
VOCs = Volatile Organic Compounds
WDNR = Wisconsin Department of Natural Resources

1.0 INTRODUCTION

Under authority of the Comprehensive Environmental Response Compensation Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Wisconsin Department of Natural Resources (WDNR) was tasked by the EPA to conduct a Site Reassessment (SR) at the Hallie Town Landfill (HTL) site, WDNR License #1771, in Chippewa County, Wisconsin as part of the fiscal year 2016 - 2017 Cooperative Agreement. The purpose of this SR was to collect information concerning conditions at the HTL site sufficient to assess the threat posed to human health and the environment and to determine the need for additional CERCLA/SARA or other appropriate action. The scope of this site reassessment included review of available file information, a comprehensive target survey, and a limited perimeter survey.

2.0 SITE BACKGROUND

2.1 Location

The Hallie Town Landfill, WDNR License #1771 (HTL) site is located at 110th Street, north of Lake Hallie and near the western boundary of the Village of Lake Hallie, Chippewa County, Wisconsin (Figure 1). The geographic coordinates for the center of the Site are 44.8939064 North latitude and -91.4460407 West longitude (Reference 1). The HTL site is on a 6.6-acre parcel located in the SW ¼ of the NW ¼ of Section 23, Township 28 North, Range 9 West. To reach the Site, travel north from Eau Claire on Hastings Way and continue north on Business 53. At County Highway OO, turn west, then north, and follow Hwy OO to 30th Avenue (formerly Hagen Road). Turn west and follow for one mile until reaching 110th Street (formerly Shafer Road). Turn north and follow 110th Street up the hill, to a small turnout on the east side of the road. Access is limited due to thick vegetation and partial fencing. The Parcel ID number is 22809-2323-07000000 (Figure 2, Reference 2).

The climate of Chippewa County is continental and characterized by cold to very cold winters and mild to warm summers. The average January temperatures range from 2^{o} to 22^{o} F and average July temperatures range from 59^{o} to 84^{o} F. The average annual precipitation is approximately 32 inches. (Reference 3).

2.2 Site Description

The total area of the HTL site is 6.6 acres, of which approximately 4 acres were used for disposal of wastes (Reference 4). Mae Willkom, WDNR Hydrogeologist, conducted a limited perimeter survey on November 16, 2016. The site is approximately one-quarter mile east of the Chippewa River and is located at the top of a southwest-facing hill which rises approximately 50 feet above a private residence and wetland area below (Figure 3, Reference 1). A residential subdivision lies to the west at the bottom of the hill, with the Chippewa River beyond. The HTL site is an L-shaped parcel, with the short, north-south axis running along 110th Street and measuring approximately 450 feet. The east-west axis runs east from 110th Street and measures approximately 1300 feet. Surrounding land use is residential and agricultural, with several small ponds in low areas (Figure 1) and some active and inactive gravel pits (Reference 4).

Based on recent aerial photography (Reference 5), there are no on-site buildings or other structures on the site. During the perimeter survey, the western boundary of the site was observed to be partially fenced along 110th Street. It also appears that accessibility of the site from 110th Street has been greatly diminished by thick vegetation.

Based on parcel mapping (Figure 2), other routes of entry along the remainder of the property perimeter would require access permission from private landowners. The HTL site is physically bounded by wooded properties (Figure 1), with a residential home to the south at the bottom of the hill and another to the north beyond the trees. To the east of the landfill are additional woodlands and farm fields, with an area of residential homes approximately 500 feet to the east-southeast. To the west of 110th Street, at the bottom of the hill, is the Bridgeport subdivision, comprised of approximately 30 single-family residences, with the Chippewa River to the west. The closest residential property is the home on the east side of 110th Street, at the bottom of the hill, approximately 50 feet south of the site.

2.3 Operational History and Waste Characteristics

The Village of Lake Hallie (formerly the Town of Hallie) owns the HTL site (Figure 4, Reference 2). The Town operated the landfill between approximately 1953 and 1978. The landfill was first licensed by the WI DNR in October, 1971, at which time the license allowed acceptance of waste from "Hallie Township" only, and restricted the types of wastes to be accepted to municipal garbage, demolition wastes, trash and brush. The landfill was open to the public two days per week, and waste was required to be compacted and covered after each day of use. Open burning was allowed only with permission from WI DNR. Total quantities of waste accepted at the landfill are unknown. Landfilling at the site ceased in 1978, when the WI DNR required proper closure and abandonment of the site. After periodic inspections and a threatened enforcement action, a final inspection in June of 1981 found the site to be covered, graded, seeded, and fenced, in accord with WI DNR requirements (Reference 4).

2.4 Regulatory Status

The site is the location of an open WDNR Environmental Repair Program (ERP) case, Bureau for Remediation and Remediation and Redevelopment Tracking System (BRRTS) No. 02-09-000066 (Figure 5, Reference 1). The case file primarily consists of documents associated with previously conducted site assessment activities, including a 1985 Preliminary Assessment (Reference 6), a 1989 Screening Site Inspection (Reference 4), and a 2002 Pre-CERCLIS Screening by the State of Wisconsin (Reference 7). Selected private well sampling was conducted in conjunction with each of these activities.

2.5 Past Environmental Investigations

On August 24, 1984, a complaint was received by WDNR (Reference 8), alleging that Control Data, Inc. had disposed of an estimated 100 gallons of organic chemicals, including 1,1-trichloroethane and trichloroethene (TCE), in the landfill prior to 1972. The complaint alleged that this material may have been dumped along with municipal waste at the HTL site during the period from 1962 to 1972. In response to the complaint, a Preliminary Assessment was conducted by WDNR. Sampling for volatile organic compounds (VOCs) was conducted in four private wells near the landfill (no map available); no VOCs were detected (Reference 6). Although the DNR recommended installation of monitoring wells at the landfill, no wells were installed, and none have been installed since that time.

A Screening Site Inspection (SSI) was subsequently conducted at the site in 1989. The SSI included seven soil samples (Figure 9), together with water samples from five private wells (Figure 10). Sampling results are presented on Table 4-1 and Table 4-2 (Reference 4).

Of the seven soil samples collected, two surficial soil samples showed low levels of compounds considered common laboratory contaminants at the time (toluene and bis 2-ethylhexyl phthalate). In the same two samples, certain other metals (such as copper, lead, vanadium and zinc) were detected at concentrations exceeding three times those detected in a background sample. Each sample also contained low concentrations of cadmium, which was not detected in the background sample. None of the concentrations detected in either sample, however, exceeded current Wisconsin non-industrial residual contaminant levels (RCLs) for direct contact.

In 2002, additional Pre-CERCLIS Screening was conducted by the WDNR, including the collection of water samples from 16 private wells on June 18, 2002 (Reference 7; no map available). No VOCs were detected in 13 of the 16 wells sampled. Three wells were found to contain relatively low levels of TCE; however, these wells were clustered together in a distal, off-site area near the present location of Rex Systems, Incorporated (Figure 1), a local manufacturer of electronic components and networked computer systems (Reference 9), located approximately 1 mile northwest (i.e. upgradient) of the HTL site and directly adjacent to the Chippewa River. This location is known locally to have once been the site of a similar facility operated by Control Data, Inc., the same entity which was alleged to have dumped TCE and other materials at the HTL site. The TCE detections at the Rex Systems facility did not exceed federal maximum contaminant levels (MCLs) or State of Wisconsin preventive action limits (PALs). Given their locations, low concentrations, and the uncertainty of the validity of past allegations, these detections cannot be directly attributed to the HTL site.

In 2006, WDNR also completed an in-house Waste Registry Screening Worksheet (Reference 10) pertaining to the site. No additional well sampling was recommended at that time.

3.0 FIELD INSPECTION ACTIVITIES

On November 16, 2016, a survey of the west perimeter of the site showed that the former landfill is no longer readily accessible from 110th Street, as the area is heavily vegetated and partially fenced. No obvious indications of releases (such as waste piles, odors or blowing dust) were noted. Photographs are included in Appendix C.

On November 29, 2016, Willkom interviewed Craig Bowe of the Village of Lake Hallie Street Department, by telephone (Reference 11) to inquire about access to the HTL parcel. Bowe was unaware of the former existence of the landfill, but confirmed that access to the parcel is limited without access permission from private landowners and that the Village has posted no-trespassing signs to deter any hunters utilizing adjacent private properties. Bowe was unaware of any current use of the parcel by locals, such as walking trails or unauthorized gatherings, as had been reported in the 1989 SSI report (Reference 4).

4.0 GROUNDWATER PATHWAY

4.1 Hydrogeologic Setting

Chippewa County is located in the Chippewa River Basin. Geologically, this area is characterized by sandstone bedrock of Cambrian age, overlying Precambrian igneous and metamorphic rocks. The bedrock is generally covered with a mantle of glacial drift. The region is characterized by ground moraine, deposited by Wisconsinan-age glaciers, with pitted outwash found in the river valleys. The unconsolidated material is primarily sand and gravel. The bedrock deposits include a layer (0 to 200 feet) of Cambrian Mt. Simon sandstone, overlying Precambrian crystalline granite (Reference 4).

WDNR was able to locate 59 Well Constructor's Reports (WCRs) for historical private water supply wells in those public land survey quarter-quarter sections within one-half mile of the HTL site which are east of the Chippewa River (Reference 19). This area includes two residential subdivisions west of the HTL site and the residential area to the east-southeast of the site. WCRs confirm that the local geology includes sand and gravel, characteristic of alluvial outwash areas, overlying sandstone bedrock. Depths to sandstone bedrock ranged from 30 to 98 feet, where encountered.

The shallowest water sources in the area are the glacial sands and gravels, which are generally in direct hydrogeologic connection with the sandstone bedrock, except in a few areas where clay may act as a confining layer. Potable wells within one-half mile of the HTL Site and east of the Chippewa River range from approximately 29 to 116 feet in depth. The water is produced at rates ranging from approximately 8 gallons per minute (gpm) to 30 gpm (Reference 19).

Previous assessments have estimated the depth to groundwater at the HTL site at approximately 12 feet, and the assumption was made that regional groundwater flow is generally west toward the Chippewa River. These are reasonable assumptions for the low areas adjacent to the river; however, the HTL site itself is located at the top of a 50-foot rise, as is another landfill site, WDNR License #2807 (Figure 1), which is approximately one mile to the north of the HTL site. Based upon many years of groundwater elevation measurements from monitoring wells at the landfill licensed by WDNR License #2807, the depth to groundwater is 52 to 73 feet below grade, and shallow groundwater was confirmed to flow to the east-northeast, rather than toward the Chippewa River (Reference 12). The direction of flow was attributed to the area's location over a bedrock high, and the presence of a buried bedrock valley to the east which contains highly permeable sands and gravels. This buried valley underlies an extensive area east of the Chippewa River, trending toward the city of Chippewa Falls to the northeast and the city of Eau Claire to the southwest, and its influence on groundwater flow has been observed at other WDNR Remediation and Redevelopment sites (Reference 1).

4.2 Groundwater Targets

The total population within the four-mile radius of the Site is 25,108 people, with 1,014 people within the one-mile radius. A summary of the 2016 census population data (Reference 13) is shown below. Associated maps are attached as Figures 6 and 7.

Radius	0-0.25 Mile	0.25-0.5 Mile	0.5-1 Mile	1-2 Miles	2-3 Miles	3-4 Miles	Total
Population	161	135/ 296*	718 / 1014*	3168 / 4182*	5813 / 9995*	15113 / 25108*	25108
Households	64	46 / 110*	276 / 386*	1208 / 1594*	2316 / 3910*	6264 / 10174*	10174

* Running population/households total.

The population within a 4-mile radius of the HTL Site relies on both municipal and private water supplies taken from groundwater.

MUNICIPAL WELLS

There are three separate municipal systems within a 4-mile radius of the Site (Figure 8, Reference 26). The water extracted from the wells within each of these municipal systems is interconnected (i.e. "blended") with water from other wells within the same municipal distribution system. The West Well Field for the City of Chippewa Falls is northeast of the HTL site and includes three wells, all within the one- to two-mile distance category; six wells are operated outside the 4-mile limit. The Village of Lake Hallie operates four wells southeast of the HTL site, one within the one- to two-mile distance category, and three within the two- to three-mile distance category. The North Well Field for the City of Eau Claire is southwest of the HTL site and includes nine wells within the three- to four-mile distance category; six wells (excluding one backup well) are operated outside the 4-mile limit. Because each municipality operates wells located in more than one distance category, the populations served by the municipal wells within the 4-mile limit all require apportionment.

City of Chippewa Falls

The City of Chippewa Falls has a total of 4963 service connections (Reference 14). Using an average number of persons per household of 2.47 in Chippewa County, Wisconsin (Reference 15), the total population of the City of Chippewa Falls served by municipal water can be estimated at approximately 12,258 persons.

WI Unique Well #	Yield (gal/day)	% Total Yield	Apportioned Population
NV227	350,995	13.2	1362
DG421	417,849	15.7	1362
BF296	244,477	9.2	1362
EJ775*	378,751	14.2	1362
BF294*	340,978	12.8	1362
BF293*	310,211	11.7	1362
BF291*	184,542	6.9	1362
BF292*	261,701	9.8	1362
BF290*	173,008	6.5	1362
Total	2,662,512	100.00	12,258

*Well outside 4-mile distance limit

Village of Lake Hallie

The Village of Lake Hallie has a total of 2,915 service connections (Reference 16). Using an average number of persons per household of 2.47 in Chippewa County, Wisconsin (Reference 14), the total population of the Village of Lake Hallie served by municipal water can be estimated at approximately 7,200 persons. Well YI619 produces in excess of 40 percent of the total production; therefore, apportionment is proportional.

WI Unique Well #	2015 Production (gal)	% Total Production	% Total Population	Apportioned Population
FD982	27,459,000	22.4	22.4	1613
YI619	49,505,000	40.3	40.3	2902
NV236	33,212,000	27.0	27.0	1944
CC823	12,709,000	10.3	10.3	741
Total	122,885,000	100.0	100.0	7,200

City of Eau Claire

The City of Eau Claire has a total of 26,870 service connections (Reference 17). Using an average number of persons per household of 2.40 in Eau Claire County, Wisconsin (Reference 18), the total population of the City of Eau Claire served by municipal water can be estimated at approximately 64,488 persons.

WI Unique Well #	Yield (gal/day)	% Total Yield	Apportioned Population
DT804	1,470,000	6.4	4296.5
BF299	1,300,000	5.6	4296.5
BF768	1,070,000	4.7	4296.5
BF772	1,050,000	4.6	4296.5
BF773	1,900,000	8.3	4296.5
BF771	1,870,000	8.1	4296.5
BF767	1,000,000	4.3	4296.5
BF766	2,000,000	8.7	4296.5
BF765	1,210,000	5.3	4296.5
BF763*	700,000	3.0	4296.5
BF764*	1,000,000	4.3	4296.5
BF769*	2,300,000	10.0	4296.5
BF770*	1,300,000	5.6	4296.5
BF774*	2,300,000	10.0	4296.5
EJ761*	2,540,000	11.0	4296.5
Total	23,010,000	100%	64,448

*Well outside 4-mile distance limit

Estimated TOTAL Population w/in 4-mile Radius Served by MUNICIPAL WELLS

Municipality	WUWN*	Distance Category	Apportioned Population
Chippewa Falls	NV 227	1-2	1362
Chippewa Falls	DG421	1-2	1362
Chippewa Falls	BF296	1-2	1362
Lake Hallie	FD982	1-2	1613
Lake Hallie	YI619	2-3	2902
Lake Hallie	NV236	2-3	1944
Lake Hallie	CC823	2-3	741
Eau Claire	DT804	3-4	4296.5
Eau Claire	BF299	3-4	4296.5
Eau Claire	BF768	3-4	4296.5
Eau Claire	BF772	3-4	4296.5
Eau Claire	BF773	3-4	4296.5
Eau Claire	BF771	3-4	4296.5
Eau Claire	BF767	3-4	4296.5
Eau Claire	BF766	3-4	4296.5
Eau Claire	BF765	3-4	4296.5
Total			**49,954**

*WI Unique Well Number

PRIVATE WELLS

DNR was able to locate a total of 1251Well Constructor's Reports for private wells within four miles of the HTL site. This number was obtained by searching the January, 2015 Water Well Data compact

diskette, available from the WI DNR Drinking Water and Groundwater program (Reference 19). Using an average number of persons per household appropriate for each distance category (Reference 13) , the total population of persons served by private wells is approximately 3224 persons within the four-mile distance limit.

Radius (mi)	0-0.25	0.25-0.5	0.5-1	1-2	2-3	3-4	Total
Private Wells	11	54/65*	196/261*	452/713*	292/1005*	246/1251*	**1251**
Average Household Size	2.51	2.92	2.59	2.66	2.54	2.39	
Estimated Population	27.61	157.68/185.29*	507.64/692.93*	1202.32/1895.25*	741.68/2636.93*	587.94/3224.87*	**3224.87**

* Running wells/population total.

The closest well that is known to be utilized as a drinking water source is a private well approximately 50 feet south of the Site (WI Unique Well JF346).; within a 0.25-mile radius of the site are approximately 11 residences relying on private wells (Reference 19).

DNR was able to locate a total of 65 Well Constructor's Reports (WCRs) for water supply wells within 0.5 miles of the Site. Of these, all 65 were identified as being utilized as potable water supplies, either "private potable" or "transient non-community."

Based upon the existence of several historical (1930 to 1989) WCRs from the area (Reference 20), there could be other potable wells near the Site. However, WDNR was unable to determine which of these wells still exist, and the vast majority of them are believed to be abandoned, as they could not be verified by other sources.

TOTAL GROUNDWATER TARGETS

Radius (mi)	0-0.25	0.25-0.5	0.5-1	1-2	2-3	3-4	Total
Pop. Served by Private Wells	27.61	157.68	507.64	1202.32	741.68	587.94	**3224**
Pop. Served by Chippewa Falls Wells	0	0	0	4086	0	0	**4086**
Pop. Served by Lake Hallie Wells	0	0	0	1613	5587	0	**7200**
Pop. Served by Eau Claire Wells	0	0	0	0	0	38,668	**38,668**
Total GW Targets	0	0	0	0	0	0	**53,178**

Note that apportionment results in an estimated population served by private wells within one mile of the site of approximately 507.64 persons. This number is relatively low in comparison to an estimated total population within one mile of the site of 1,014, as reported by census population data (Reference

13). This may be due, in part, to the fact that a number of neighborhoods within one mile of the HTL site are served by Village of Lake Hallie municipal wells (Reference 16). Similarly, whereas apportionment results in estimated total groundwater targets of approximately 53,178 persons, the estimated total population within four miles of the site as reported by census population data is only 25,108. This may be due to the fact that many residents outside the four-mile radius of the site are served by the municipal wells within that radius.

4.3 Groundwater Conclusions

Based on a complaint received by the WDNR in 1984 (Reference 8), a release of hazardous substances from the HTL Site to the sand-and-gravel aquifer is suspected. However, such a release has never been confirmed by existing data from private well sampling conducted during previous site assessment activities. In general, no target compound list (TCL) or target analyte list (TAL) contaminants have exceeded their respective MCLs or Wisconsin enforcement standards (ESs) in any private well samples. Contrary to previous assumptions of groundwater flow toward the west, however, groundwater from the bedrock high upon which the landfill is located may actually flow toward the east, as is the case at the landfill licensed under WDNR License #2807, approximately one mile north of the HTL site.

Only one of the private wells sampled during previous assessments (RW4, Figure 10) was located east of the HTL site, approximately one-quarter mile to the east-southeast at the terminus of 35th Avenue (Figure 1). According to the well owner, the well was approximately 110 feet in depth. It should be noted that low levels (less than one microgram per liter each) of tetrachloroethene (PCE) and 1,2-dichloroethene (DCE) were detected in this well in 1989. This well was the only one of five locations sampled at that time which detected any measurable amount of chlorinated VOCs. These detections, albeit low, may support the conclusion that groundwater flow from the HTL site could indeed be toward the east. Several other homes are served by private wells in the same residential area east-southeast of the HTL site; therefore, private well sampling of additional homes in that area may be warranted.

None of the municipal wells have reported elevated levels of contamination attributed to the site. In the late 1980s, a groundwater plume existed southwest of the site; however, the contamination associated with that plume was attributed to a private industry in Eau Claire (Reference 4).

5.0 SURFACE WATER PATHWAY

5.1 Hydrologic Setting

The topography of the HTL parcel itself is mostly flat; however the site slopes along its western border, resulting in the steepest slopes on the south end of the west border, with a nearly sheer drop-off at the southwestern corner of the site (Reference 4). Consequently, overland drainage from the west boundary of the HTL site is expected to flow south along the east side of 110th Street, toward the residence at the bottom of the hill. Beyond the residence is an isolated wetland which may or may not occasionally receive drainage from the hilltop, depending upon the length and severity of precipitation events. The wetland perimeter is approximately 3500 feet (Reference 21). The greater area contains several additional ponds (Figure 1), some of which have been the sites of local quarrying operations (Reference 4). These ponds, together with the wetland area, may collectively represent remnants of an old meander of the Chippewa River to the west, as Lake Hallie, approximately three-quarters of a mile to the south, is thought to be an oxbow lake resulting from the cutoff of a meander (Reference 22). As such, the ponds are probably discharge areas for groundwater.

The surficial soils of the landfill site are mapped primarily as excessively drained Menahga Loamy Sand (0 to 6 percent slopes), and the western slope of the landfill is mapped as somewhat excessively drained Chetek-Mahtomedi Complex (25 to 40 percent slopes) (Reference 23). The site does not lie within the flood plain. (Reference 24).

5.2 Surface Water Targets

Although regional topography generally slopes to the west toward the Chippewa River, no obvious drainage pathways for migration of contaminants from the HTL site toward the river are evident. As stated in the 1989 SSI, intervening terrain and much residential construction has separated the site from nearby surface water bodies.

Other than the isolated wetland described above, there are no sensitive environments in the area of the HTL site.

There are three Federally designated endangered species—the Spectaclecase (mussel), the Karner blue butterfly, and the Gray wolf, found in Chippewa County (Reference 25). According to the DNR Natural Heritage Inventory, the federal high-potential range for the Karner blue butterfly is mapped within approximately two miles of the site (Reference 27).

5.3 Surface Water Conclusions

There are no indications of a release of contaminants to the Chippewa River. The anticipated direction of surface drainage from the landfill site is toward low areas to the south, which may include an isolated wetland. However, contaminated surface runoff is expected to be minimal, considering that the entire landfill was reported to have been covered by two feet of soil and six inches of topsoil, in accordance with WDNR instructions, prior to its closure in 1981. In addition, the topography of the landfill is mostly flat, and soils are described as excessively drained. Although some slightly eroded areas were observed on the western boundary of the site during the 1989 screening site inspection (Figure 4), the site now appears to be thickly vegetated.

6.0 SOIL EXPOSURE AND AIR PATHWAYS

6.1 Physical Conditions

Small amounts of exposed refuse and low levels of contaminants released into site soils were observed during the 1989 SSI (Figure 4, Reference 4). However, accessibility of the site from 110th Street has been greatly diminished due to the relative obscurity of the former site entrance along 110th Street. Thick vegetation and partial fencing deter site access in this area. No-trespassing signs are present (Reference 11). No soil or air sampling was conducted for this site reassessment.

6.2 Soil and Air Targets

The site is not occupied, and there are no on-site workers, except for a local farmer who occasionally accesses the landfill site in order to mulch undesirable milfoil vegetation collected by the Village from local surface water locations (Reference 11). Other routes of entry along the remainder of the

property perimeter would require access permission from private landowners. No-trespassing signs posted by the Village should deter local hunters utilizing adjacent private property.

The nearest residence is south of the site, at the base of an approximate 50-foot topographical rise to the landfill parcel above. This home and two other private residences are within 200 feet of the site; however, these homes are located in the lowland below the topographical rise to the landfill and thus are not directly adjacent. No schools or daycare facilities are within 200 feet of the site. Based on 11 private well logs identified within 0.25 miles of the site and an estimated household size of 2.51, there are approximately 26 residents within 0.25 miles of the site. The total population within a 1-mile radius of the site is estimated to be approximately 1014 residents (Section 4.2 above).

There are three Federally designated endangered species—the Spectaclecase (mussel), the Karner blue butterfly, and the Gray wolf—found in Chippewa County (Reference 25). According to the DNR Natural Heritage Inventory, the federal high-potential range for the Karner blue butterfly is mapped within approximately two miles of the site (Reference 27).

6.3 Soil Exposure and Air Conclusions

Lead and zinc were detected in elevated concentrations in one on-site soil sample during the 1989 SSI (Reference 4), which significantly exceeded the concentrations measured in the designated background sample. Such compounds are characteristic of those associated with deposition of regular, non-hazardous waste materials. However, none of the seven soil samples collected during the 1989 SSI detected concentrations of contaminants exceeding current Wisconsin non-industrial RCLs for direct contact. In addition, waste and/or contaminated soil should be minimally accessible due to proper closure of the landfill in 1981. The site is no longer active, is heavily vegetated, and is relatively inaccessible without access permission from private landowners. Therefore, the soil exposure pathway appears to pose a minimal threat at the HTL site.

A release to the air is not suspected, as no odors were detected and there was no indication of blowing dust or soil during the perimeter survey.

7.0 SUMMARY AND CONCLUSIONS

The Town of Hallie (now known as the Village of Lake Hallie) operated the Hallie Town Landfill site, WDNR License #1771, in Chippewa County, Wisconsin from approximately 1953 to 1978. During this period, wastes accepted by the landfill included municipal garbage, demolition wastes, trash and brush. The landfill was properly closed in 1981.

Despite a complaint that hazardous substances may once have been dumped at the HTL site, no release of hazardous substances from the HTL site to the sand-and-gravel aquifer has ever been confirmed by repeated private well sampling conducted during previous site assessment activities. Past sampling, however, appears to have been based on a potentially inaccurate assumption regarding the direction of groundwater flow from the HTL site, and additional private well sampling of a residential area east-southeast of the HTL site may be warranted.

There are no indications of a release of contaminants to the Chippewa River. Although surface runoff is expected to drain toward a residence and isolated wetland downslope from the site, contaminated surface runoff is expected to be minimal, considering proper closure of the landfill in 1981 and the current thickness of vegetation at the site. For these same reasons, and given that the site is relatively inaccessible, the threat posed by soil exposure also appears minimal.

No release to the air is suspected due to the length of time since the landfill closure and the lack of any odors or blowing particulates during a limited perimeter survey.

8.0 REFERENCES

1. WI DNR Bureau for Remediation and Redevelopment. RR Sites Map mapping application website. http://dnrmaps.wi.gov/sl/?Viewer=RR%20Sites

2. Chippewa County, WI Property Search website. http://mapping.co.chippewa.wi.us/

3. Wisconline Climate Data for Chippewa County, Wisconsin, website. http://www.wisconline.com/counties/chippewa/climate.html

4. *WDNR, December 14, 1989, Draft Screening Site Inspection Report for Hallie Town Landfill, Chippewa Falls, Wisconsin, USEPA ID# WID981095920.

5. "Hallie Town Landfill #1771 and Surrounding Area." Section 23, Township 28 North, Range 9 West. Google Earth. November 29, 2016.

6. *WDNR, September 13, 1985, Preliminary Assessment Narrative, Town of Hallie, Abandoned Landfill; Shafer Road (SW¼, NW¼, S23, T28N, R9W), Wisconsin.

7. *WDNR, July 11, 2002, Pre-CERCLIS Screening Worksheet w/attachments, Hallie Town Landfill, Town of Hallie, Wisconsin, USEPA ID# WID981095920.

8. WDNR, August 24, 1984, Solid Waste Incident Report, Tn of Hallie, License #1771.

9. Rex Systems Incorporated website. http://www.rexsystems.com/About%20Us.htm.

10. *WDNR, October 19, 2006, Waste Registry Screening Worksheet w/attachments, Halllie TN LF #1771.

11. Bowe, Craig. November 29, 2016. Village of Lake Hallie Street Department. Telephone Interview. Conducted by Mae Willkom of WDNR.

12. *SEH, May 25, 1999, Town of Hallie Sanitary Landfill Plan Modification Report.

13. ESRI Community Analyst, Demographic and Income Profile. November 14, 2016, www.esri.com/ca.

14. Freagon, Connie. November 28, 2016. Email correspondence. City of Chippewa Falls. Utility Office Manager.

15. United States Census Bureau Quick Facts website for Chippewa County, Wisconsin. http://www.census.gov/quickfacts/table/PST045215/55017.

16. Schad, Derek. November 16, 2016. Email correspondence. Village of Lake Hallie. Lead Water Operator.

17. *Pippenger, Jeff. November 16, 2016. Email correspondence. Water, Electric, or Joint Utility Annual Report of Eau Claire Municipal Water Utility.

18. United States Census Bureau Quick Facts website for Eau Claire County, Wisconsin. http://www.census.gov/quickfacts/table/PST045215/55035.

19. WI DNR Bureau of Drinking Water and Groundwater. Water Well Data Compact Diskette. Wisconsin Well Construction Reports plus other related files. July 2015.

20. Wisconsin Geological and Natural History Survey. Historic Well Construction Reports (1930-1989) website. http://geodata.wgnhs.uwex.edu/well-viewer/

21. WDNR Surface Water Data Viewer. https://dnrmaps.wi.gov/H5/?Viewer=SWDV&runWorkflow=Wetland

22. Lake Hallie, Wisconsin, entry on Wikipedia, The Free Encyclopedia website. https://en.wikipedia.org/wiki/Lake_Hallie,_Wisconsin

23. Natural Resources Conservation Service Web Soil Survey website. http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

24. FEMA Flood Map Service Center: Search by Address website. https://msc.fema.gov/portal/search. FIRM Flood Insurance Rate Map, Village of Lake Hallie 550454, Wisconsin.

25. U.S. Fish & Wildlife Service website. ECOS Environmental Conservation Online System. Species By County Report. https://ecos.fws.gov/ecp0/reports/species-by-current-range-county?fips=55017.

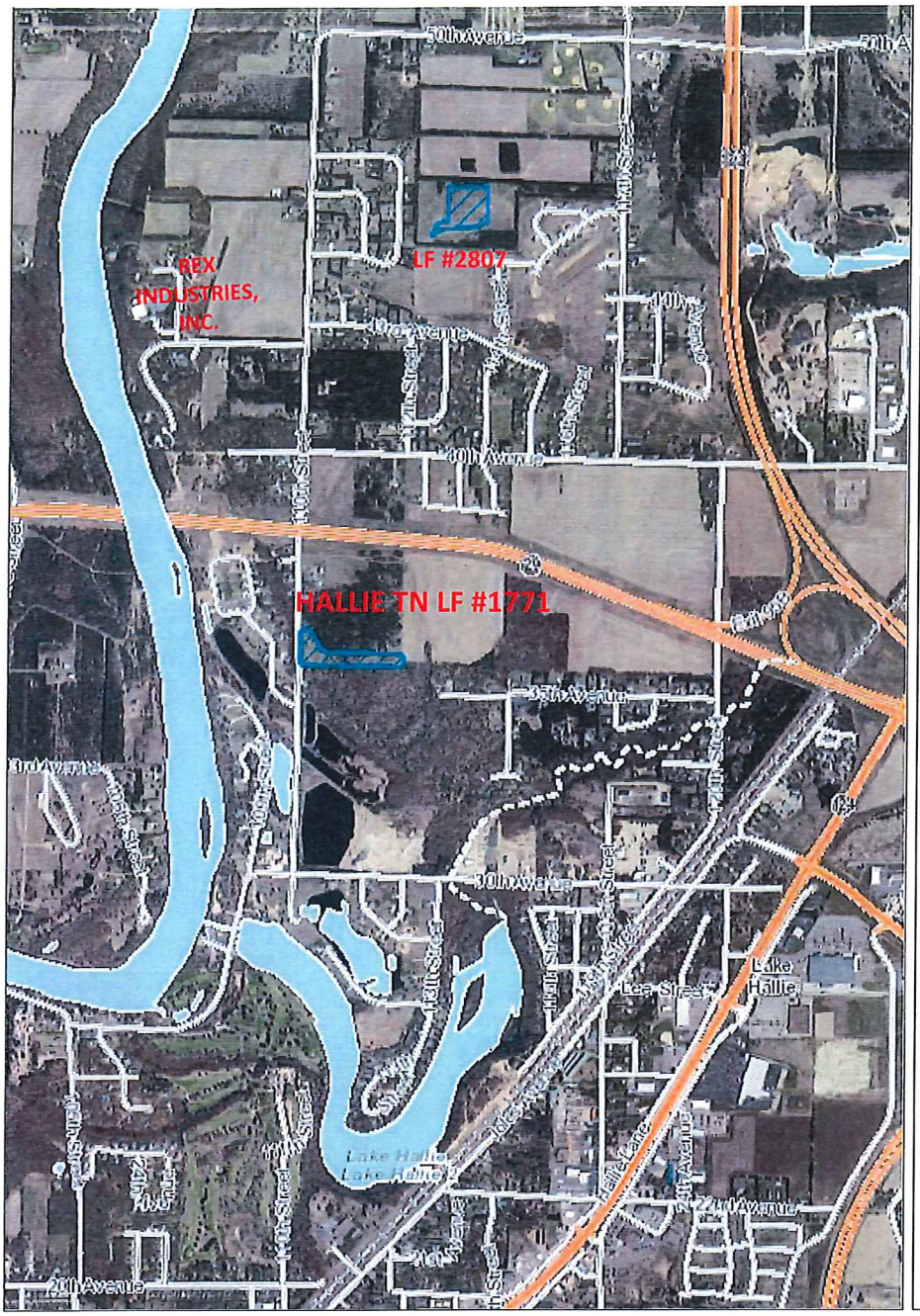
26. WDNR Water Use and Hi-Capacity Well Viewer. http://dnrmaps.wi.gov/H5/?viewer=Water_Use_Viewer.

27. WDNR Natural Heritage Inventory Portal Resource Page. https://dnrx.wisconsin.gov/nhiportal/map.

* References too voluminous to attach; they can be reviewed at Wisconsin Department of Natural Resources-Eau Claire West Central Region Headquarters.

APPENDIX A

Figure 1 - Site Location Map



Legend

- Open Site Boundary
- Rivers and Streams
- Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands

0.8 0 Distance / 2 0.8 Miles

1: 24,000

NAD_1983_HARN_Wisconsin_TM

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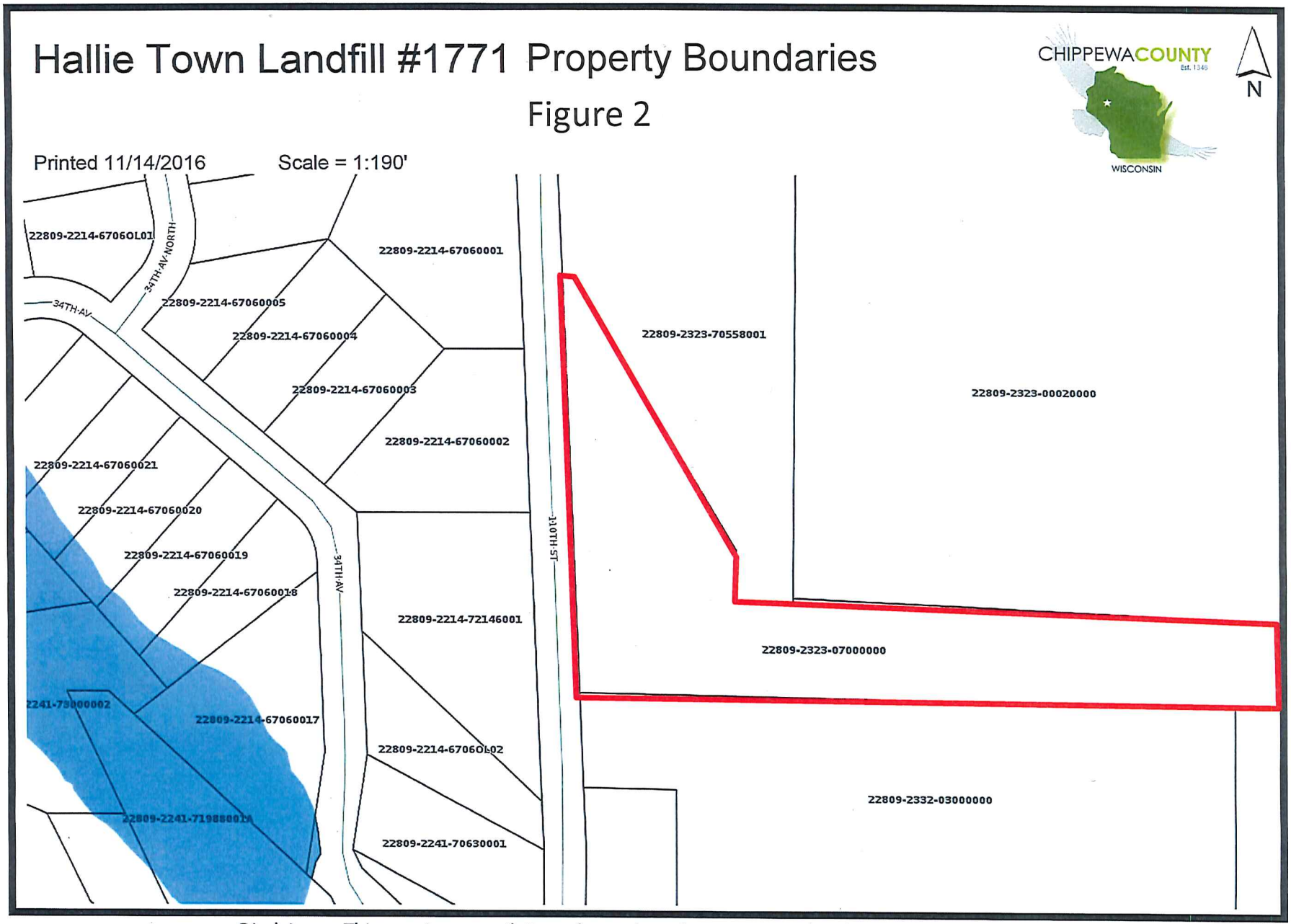
Note: Not all sites are mapped.

Notes

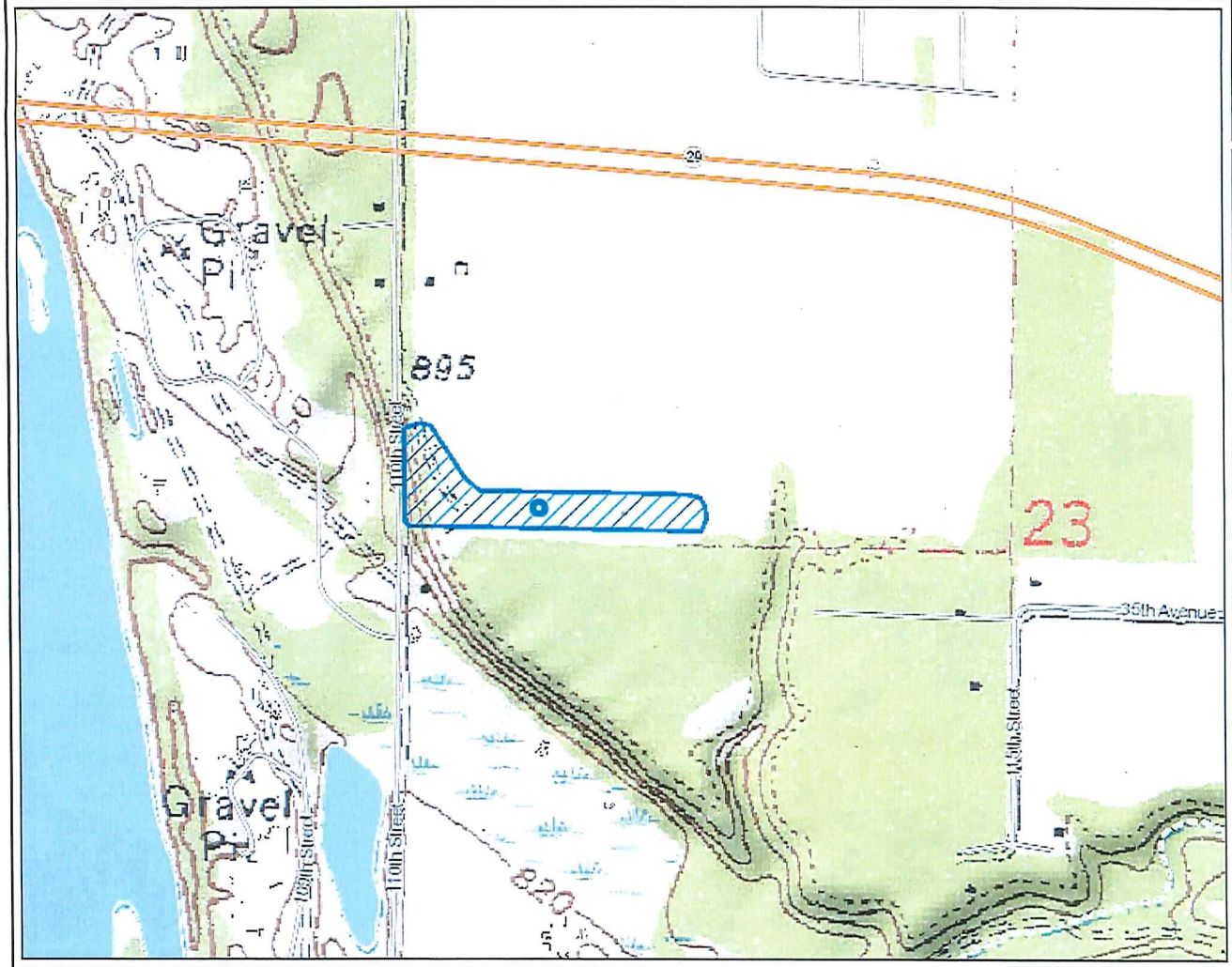
Hallie Town Landfill #1771 Property Boundaries

Figure 2



Disclaimer: This map is a compilation of records as they appear in the Chippewa County Offices affecting the area shown and is to be used only for reference purposes.

Figure 3 – Topographic Map



Legend

- Open Site (ongoing cleanup)
- Open Site Boundary
- Closed Site (completed cleanup)
- Closed Site Boundary
- Groundwater Contamination
- Soil Contamination
- Groundwater and Soil Contamination
- Contamination from Another Property
- Dryclean Environmental Response Fund (DERF)
- Green Space Grant (2004-2009)
- Ready for Reuse
- Site Assessment Grant (2001-2009)
- State Funded Response
- Sustainable Urban Development Zone (S
- General Liability Clarification Letters
- Superfund NPL
- Voluntary Party Liability Exemption
- Rivers and Streams
- Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway

Notes

0.3 0 0.13 0.3 Miles

NAD_1983_HARN_Wisconsin_TM

1:7,920

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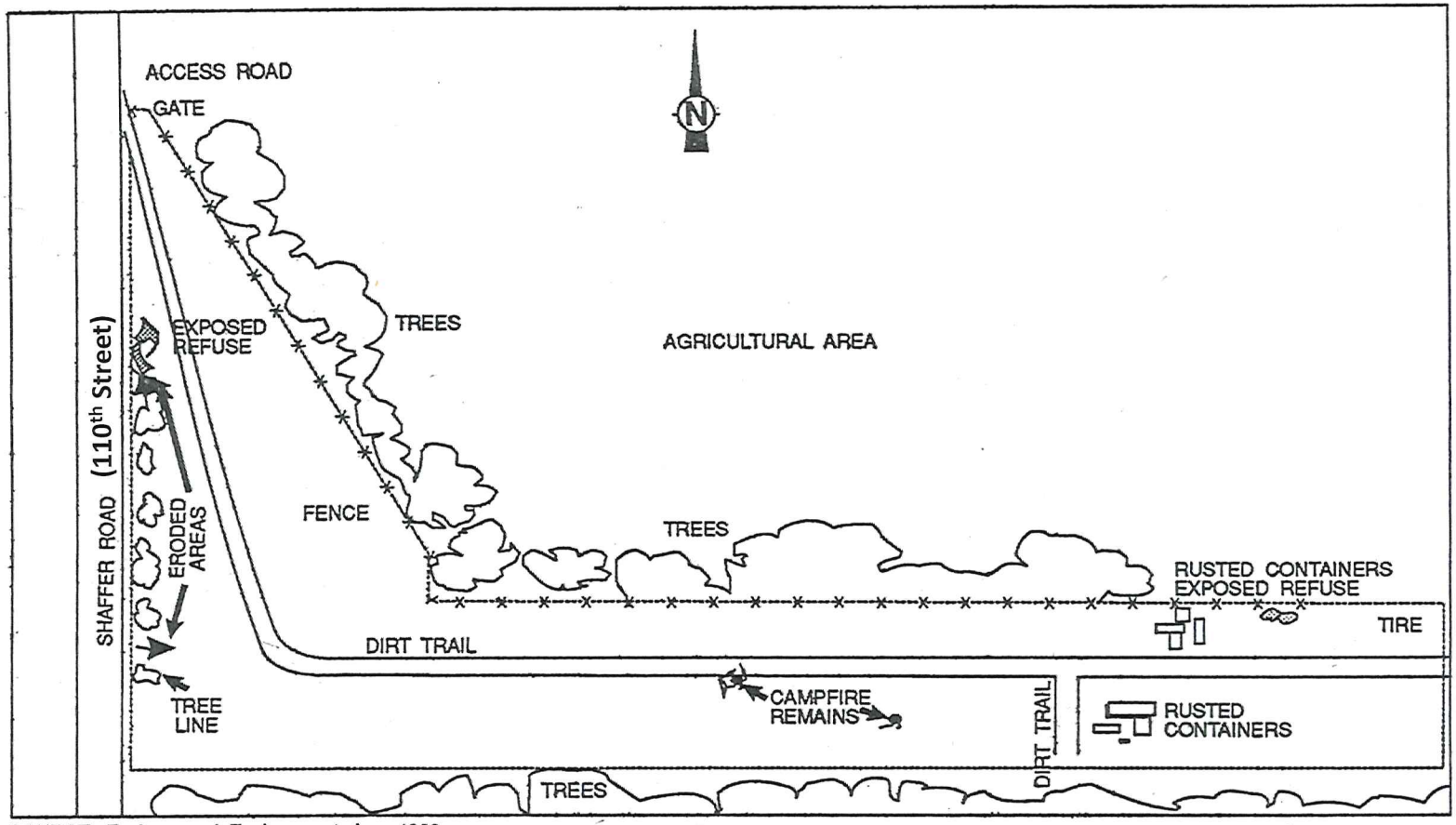
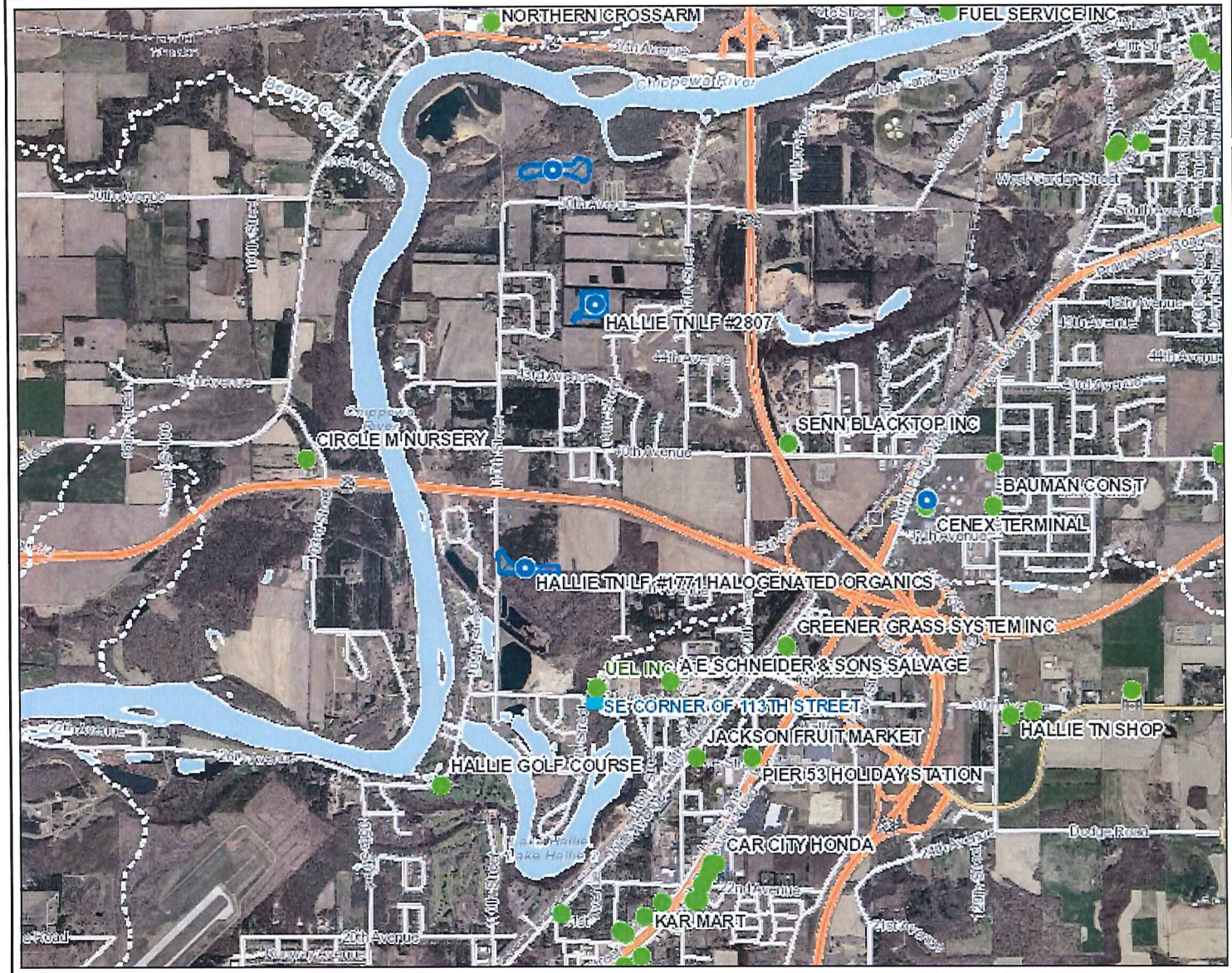
Note: Not all sites are mapped.



SOURCE: Ecology and Environment, Inc. 1989.

Figure 4 – Site Features

Figure 5 - Environmental Cleanup Case Locations



Legend

- Open Site (ongoing cleanup)
- Open Site Boundary
- Closed Site (completed cleanup)
- Closed Site Boundary
- Groundwater Contamination
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- Rivers and Streams
- Open Water
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway

1.2 0 0.61 1.2 Miles

NAD_1983_HARN_Wisconsin_TM

1: 38,864

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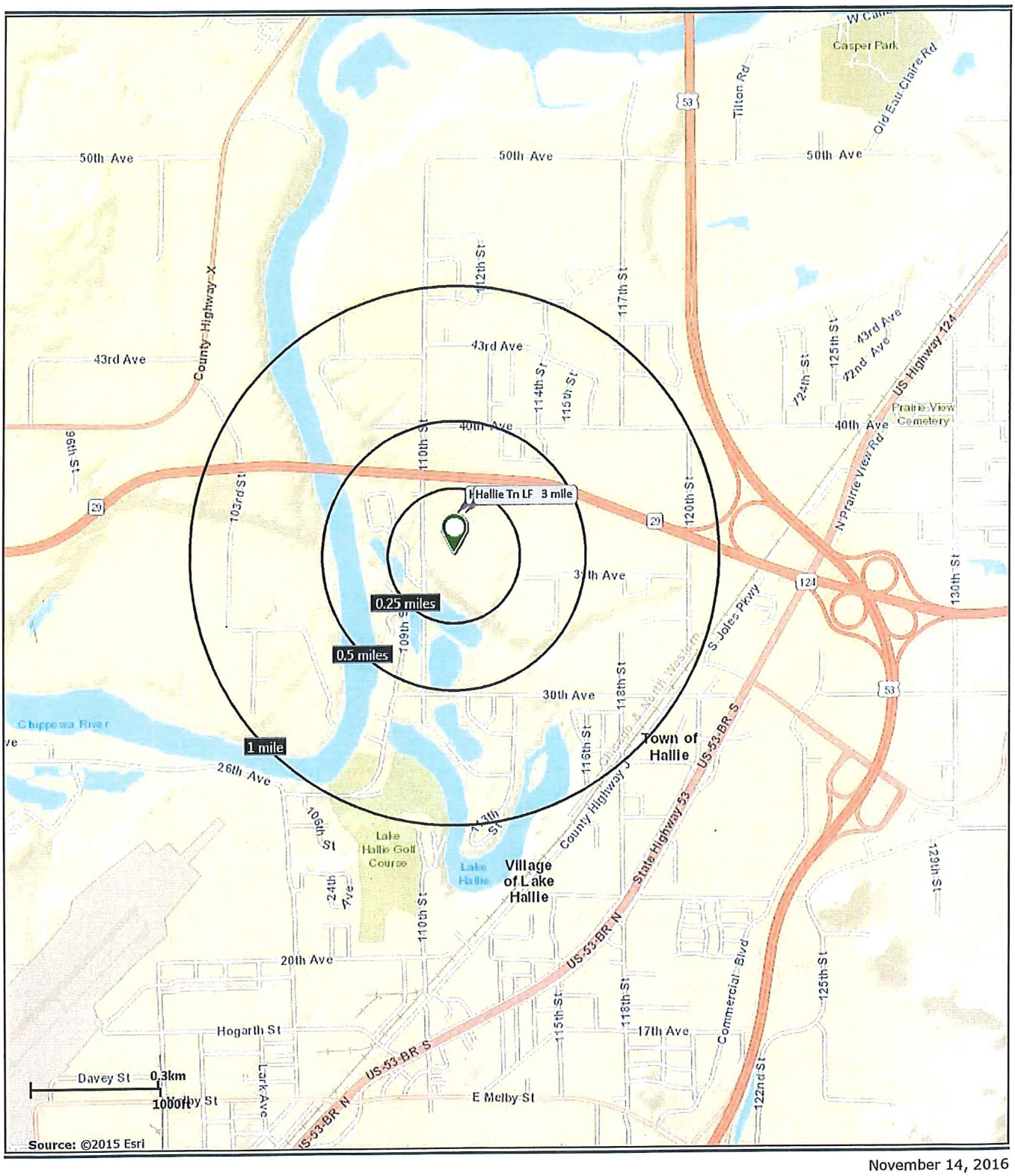
Note: Not all sites are mapped.

Notes

Figure 6

Hallie TN LF

- 1 Mile Radius Map

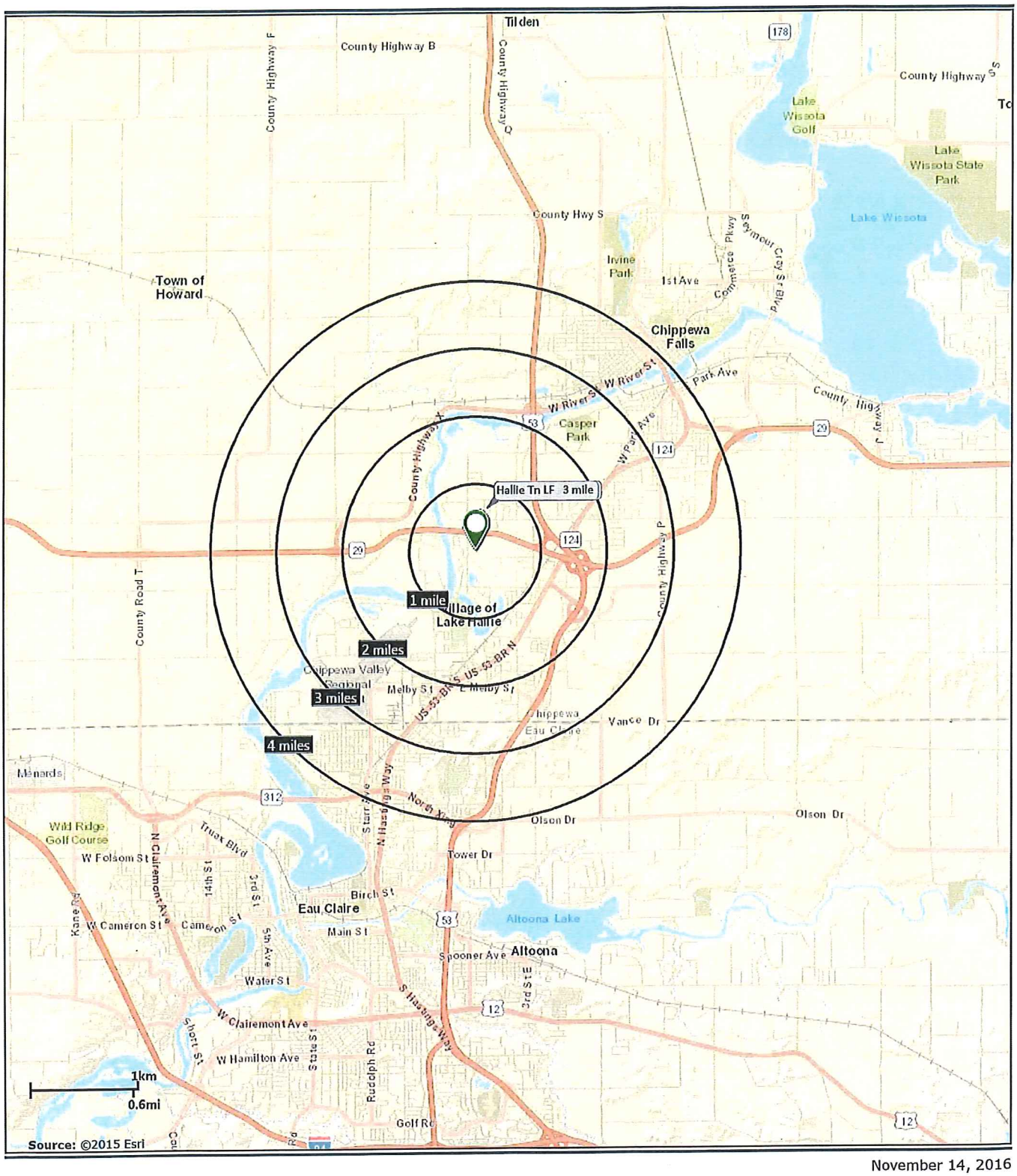


November 14, 2016

Figure 7

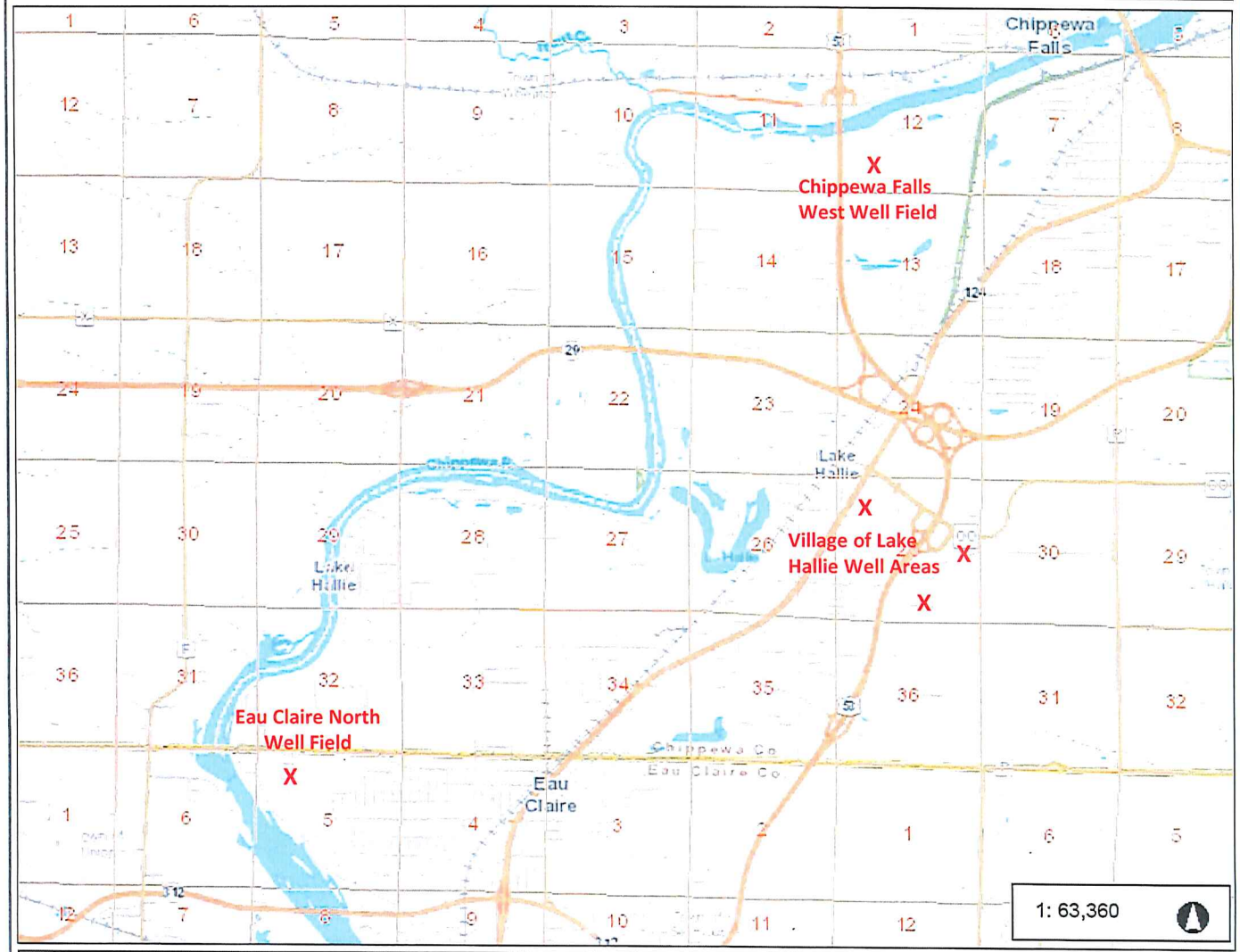
Hallie TN LF

- 4 Mile Radius Map



November 14, 2016

Figure 8 Nearby Public Water Supplies



2.0 0 1.00 2.0 Miles

NAD_1983_HARN_Wisconsin_TM

Map created: 12/1/2016

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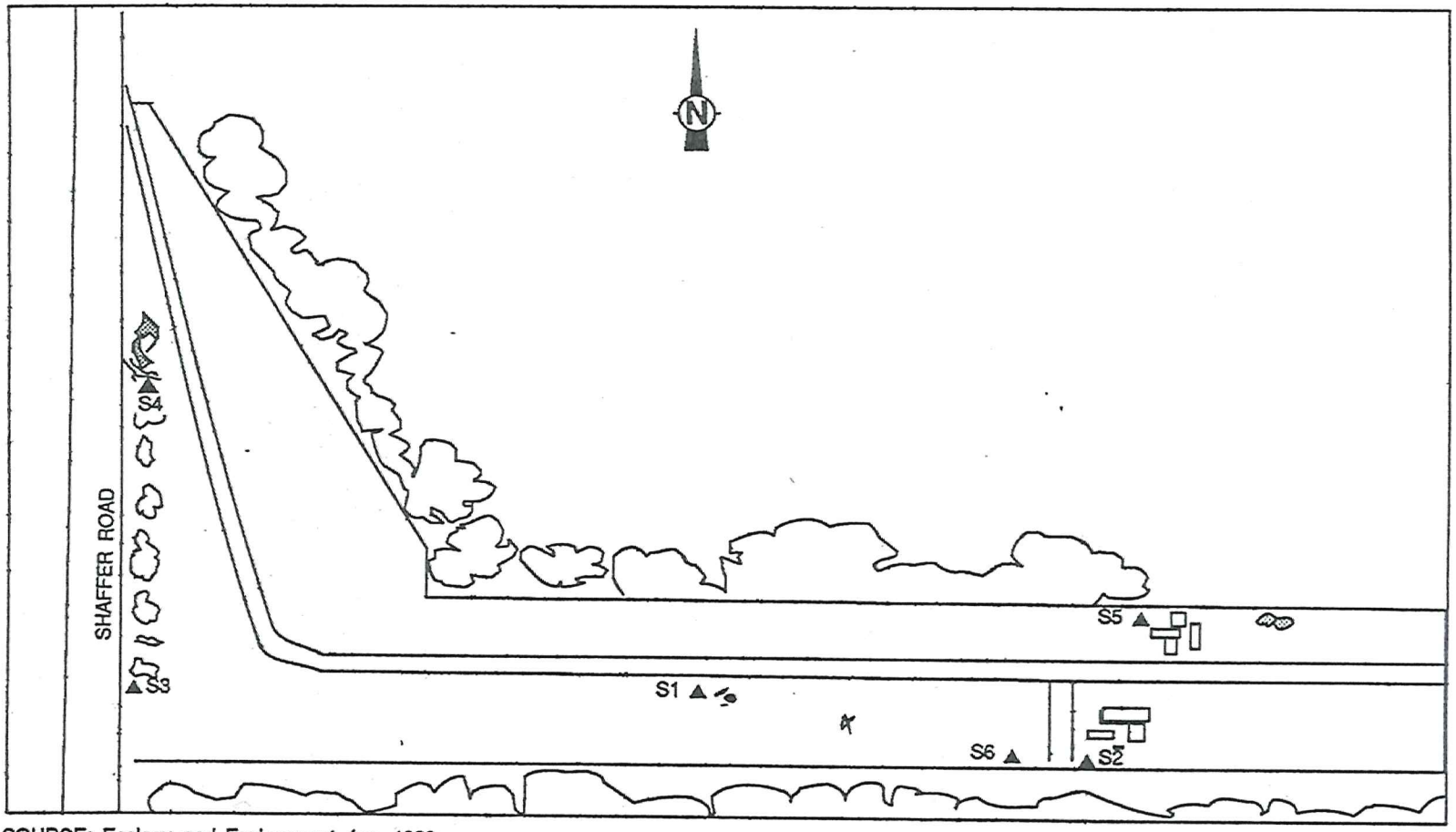
Legend

- Sections
- Municipality
- Municipality
  - City or Village
  - Township
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Rivers and Streams
- Intermittent Streams
- Open Water
- Tribal Lands
- Tribal Lands
- Local Parks
- State Natural Areas (SNA)
- DNR Managed Lands
- Non-closed DNR Easements
  - Open

This map was created for use by the general by the general public to view the locations and volumes of high capacity well and surface water withdrawals. It also provides a means for the general public to view pending high capacity well applications and recently approved wells. As required by Wisconsin law, these locations are generalized to display at the public land survey section level. Therefore, any well or surface water intake is symbolized by the section in which it is located.

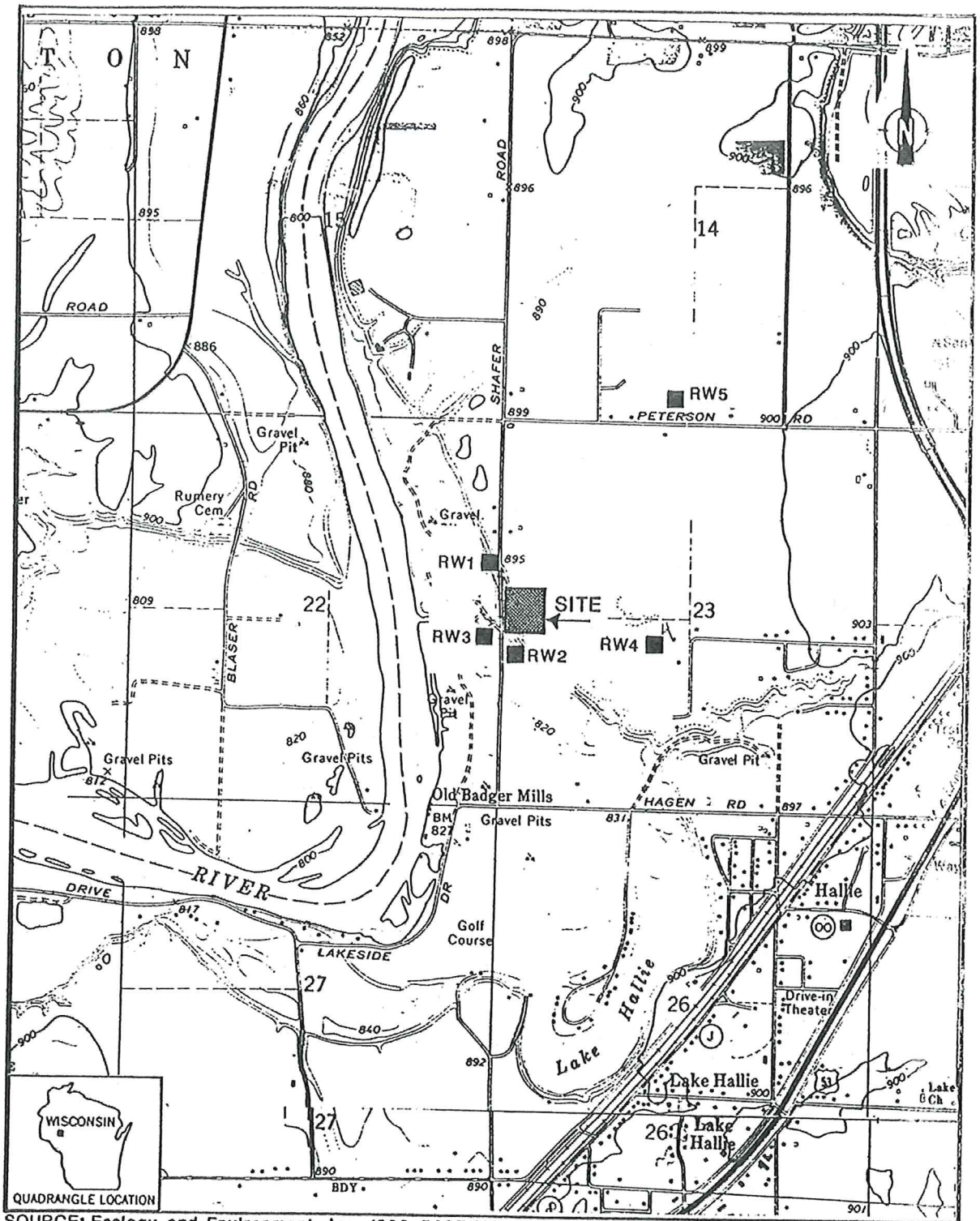


SOURCE: Ecology and Environment, Inc. 1989.

SCALE

0 125 250 375 500 FEET

Figure 9 – Soil Sampling Locations



SOURCE: Ecology and Environment, Inc. 1989; BASE MAPS: USGS, Chippewa Falls, WI Quadrangle, 7.5 Minute Series, 1972; Eau Claire East, WI Quadrangle, 7.5 Minute Series, 1972.

SCALE
0 ½ 1 MILE

Figure 10 – 1989 Residential Well Sampling Locations

APPENDIX B

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL SAMPLES

Sample Collection Information and Parameters	Sample Number S1	S2	S3	S4	S5	S6	S7
Date	5/23/89	5/23/89	5/23/89	5/23/89	5/23/89	5/23/89	5/23/89
Time	1245	1255	1310	1320	1350	1405	1215
CLP Organic Traffic Report Number	EFK21	EFK22	EFK23	EFK24	EFK25	EFK26	EFK27
CLP Inorganic Traffic Report Number	MEEB65	MEEB66	MEEB67	MEEB68	MEEB69	MEEB70	MEEB71
Compound Detected (values in µg/kg)							
Volatile Organics							
toluene	—	—	—	6J	—	1J	—
Semivolatile Organics							
bis(2-ethylhexyl)phthalate	—	—	—	140J	—	—	—
Analyte Detected (values in mg/kg)							
aluminum	5,910	5,490	4,340	5,640	3,660	6,500	5,550
antimony	—	5.5JB	—	3.6JB	3.4JB	6.2JB	5.0JB
arsenic	1.3JNWB	—	0.98JNWB	—	—	1.8JNB	1.5JNB
barium	63.7	38.8B	23.6B	68.9	16.7B	93.6	85.6
cadmium	—	—	—	0.34JB	—	0.46JB	—
calcium	1,060	1,650	2,480	2,050	1,250	1,790	1,720
chromium	9.9	13	8.8	10.3	7.1	14.4	7.6
cobalt	5.1B	5.8B	6.6B	5.5B	4.5B	9.6B	3.8B
copper	5.0	15.4	16.1	18	9.0	23.4	5.8
iron	8,730	9,900	9,560	9,800	5,880	12,500	6,140
lead	5.3	34	5.8	32	1.3	138	11.5
magnesium	1,500	2,220	2,520	2,190	2,050	2,190	1,450
manganese	333JN	184JN	174JN	318JN	135JN	699JN	368JN
nickel	11.1	12.1	12.4	14.3	12.2	17.2	8.9
potassium	397B	340B	298B	325B	159B	386B	376B

Table 4-1 (Cont)

Sample Collection Information and Parameters	Sample Number S1	S2	S3	S4	S5	S6	S7
sodium	—	—	102B	—	—	91B	—
vanadium	25.9	24	25.7	89.8	14.8	28.4	14.6
zinc	23.6	47.5	25	77.5	15.6	295	29

— Not detected.

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
W	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.

Source: Ecology and Environment, Inc. 1989.

Table 4-2
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED RESIDENTIAL WELL SAMPLES

Sample Collection Information and Parameters	Sample Number RW1	Duplicate	RW2	RW3	RW4	RW5	Blank
Date	5/24/89	5/24/89	5/24/89	5/24/89	5/24/89	5/24/89	5/24/89
Time	1010	1010	1045	1000	1120	1120	1015
CLP Organic Traffic Report Number	EFK28	EFK29	EFK30	EFK31	EFK32	EFK33	EFK34
CLP Inorganic Traffic Report Number	MEFB73	MEFB75	MEFB74	MEFB76	MEFB77	MEFB78	MEFB72
Temperature (°C)	16	16	17	18	16	18	—
Specific Conductivity (ppm)	60	60	50	140	45	50	—
pH	7.16	7.16	8.18	6.85	8.36	7.58	—
Compound Detected (values in µg/L)							
Volatile Organics							
1,2-dichloroethene (total)	—	—	—	—	0.9	—	—
tetrachloroethene	—	—	—	—	0.8	—	—
toluene	0.6	—	0.3	—	0.3	—	—
ethylbenzene	5	—	—	—	—	—	—
xylenes (total)	19	—	—	—	—	—	—
Analyte Detected (values in µg/L)							
aluminum	—	143	—	—	—	71.5B	91.5B
antimony	—	5.7	5.4	5.1N	9.4N	—	—
barium	—	—	20.4B	35.7B	19.4B	21B	—
beryllium	—	—	2.7JB	—	3.1JB	—	2.5JB
calcium	13,400	12,500	13,800	38,300	15,900	13,600	—
cobalt	—	—	—	7.6J*B	—	—	—
copper	35.8J	34.1J	—	—	—	12.4J	—
iron	97.5JB	91.5JB	499J	429J	636J	65.6JB	—
lead	1.2JB	5.7J+	0.87JB	0.97JB	0.53JB	1.0JB	0.84JB
magnesium	6,410J	6,160J	8,000J	16,400J	5,580J	6,230J	—
manganese	11.3J	8.1JB	809J	—	650J	—	—

Table 4-2 (Cont.)

Sample Collection Information and Parameters	Sample Number RW1	Duplicate	RW2	RW3	RW4	RW5	Blank
potassium	850B	—	960B	1,150B	1,070B	886B	—
selenium	—	3.8*	—	2.2*	—	—	—
silver	—	—	3.3J*NB	4.4J*NB	—	—	—
sodium	2,970	2,820	2,640	7,360	2,320	3,770	—
zinc	262J	235J	20.5J	—	—	19.2JB	—

— Not detected.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semi-quantitative.
+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.

Source: Ecology and Environment, Inc. 1989.

APPENDIX C

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: **Hallie Town Landfill** LOCATION: 110th St., Lake Hallie, WI

U.S. EPA ID: WID981095920 WDNR BRRTS ID #: 02-09-000066 SW LICENSE #: 1771

DATE: 11/16/2016 TIME: 3:24 P.M. DIRECTION OF PHOTOGRAPH: E-NE PHOTOGRAPHED BY: MEW

WEATHER CONDITIONS: Partly Cloudy

DESCRIPTION: Fencing at former 110th St. entrance to Hallie Town Landfill site

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: **Hallie Town Landfill** LOCATION: 110th St., Lake Hallie, WI

U.S. EPA ID: WID981095920 WDNR BRRTS ID #: 02-09-000066 SW LICENSE #: 1771

DATE: 11/16/2016 TIME: 3:24 P.M. DIRECTION OF PHOTOGRAPH: SE PHOTOGRAPHED BY: MEW

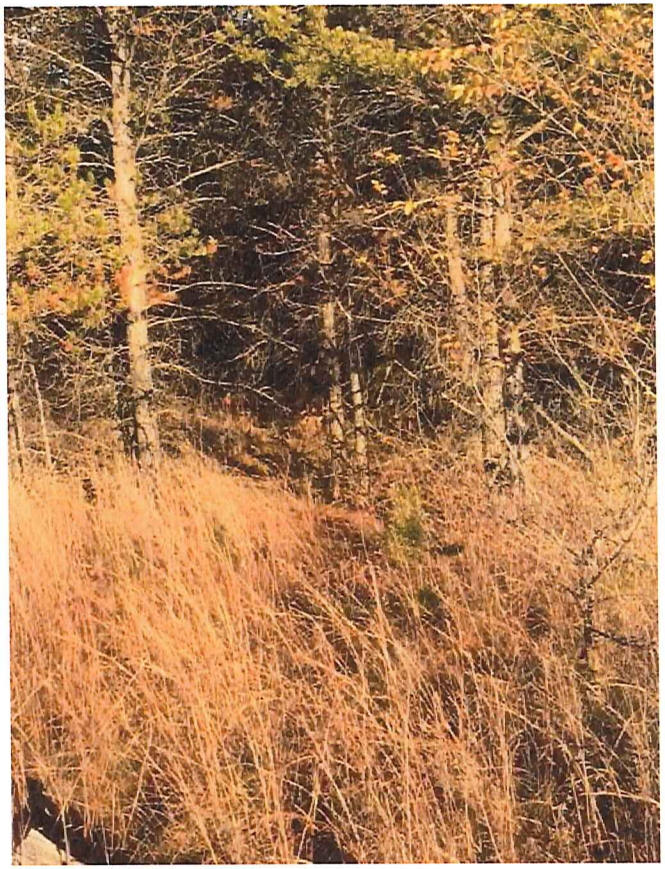
WEATHER CONDITIONS: Partly Cloudy

DESCRIPTION: Fencing at former 110th St. entrance to Hallie Town Landfill site

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: **Hallie Town Landfill** LOCATION: 110th St., Lake Hallie, WI

U.S. EPA ID: WID981095920 WDNR BRRTS ID #: 02-09-000066 SW LICENSE #: 1771

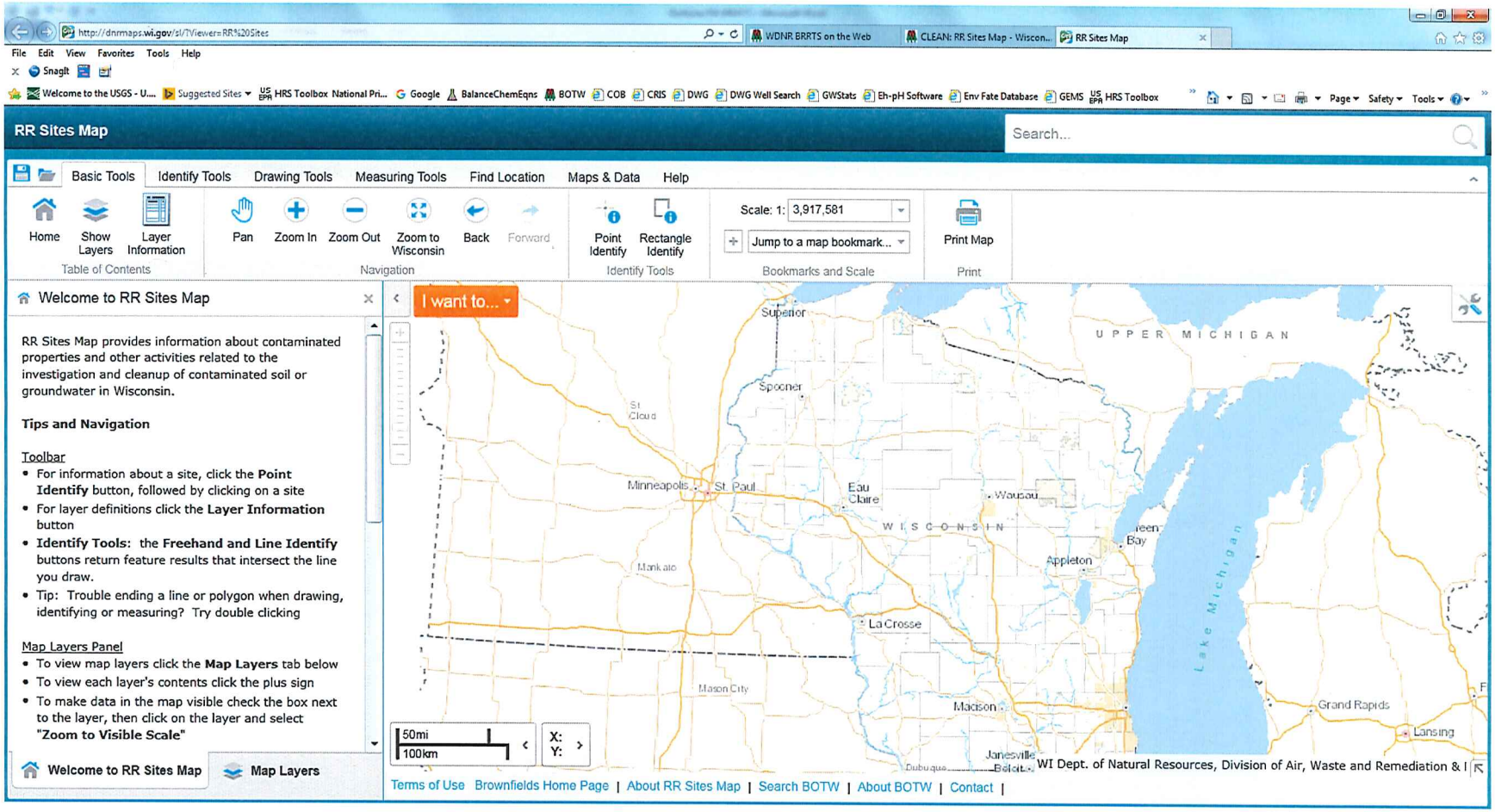


DATE: 11/16/2016 TIME: 3:25 P.M. DIRECTION OF PHOTOGRAPH: E PHOTOGRAPHED BY: MEW

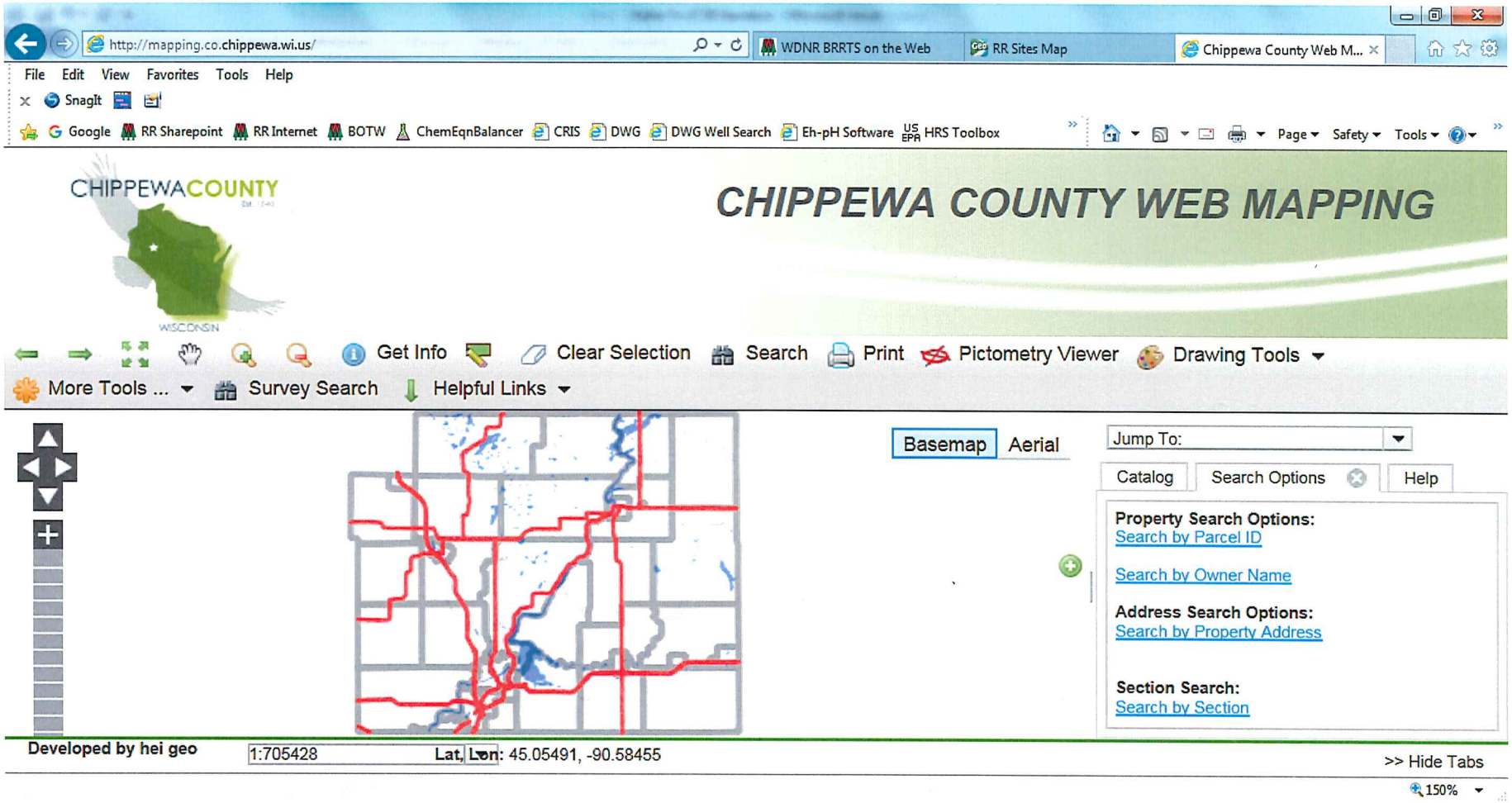
WEATHER CONDITIONS: Partly Cloudy

DESCRIPTION: Thick vegetation at western boundary of Hallie Town Landfill site

APPENDIX D



http://dnrmaps.wi.gov/sl/?Viewer=RR%20Sites



http://mapping.co.chippewa.wi.us/

county location

More Local Information

Home Page
Local Events
Local Attractions
County Map
Climate Table
Data Reports
Wisconsin Hospitals

Climate Data for Chippewa County, Wisconsin

Climate Normals and Growing Season Summary

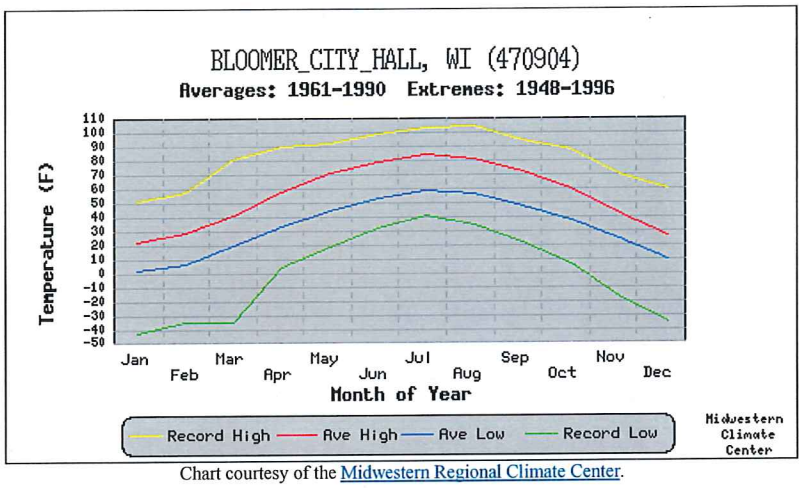


Chart courtesy of the Midwestern Regional Climate Center.

Growing Season Summary:

Median date of last frost in the spring: May 13. Last Spring Frost Zones.
(The last frost occurs on or after May 28 in 10 percent of the years.)

Median date of first frost in the fall: September 26. First Fall Frost Zones.
(The first frost occurs on or before September 17 in 10 percent of the years.)

Median growing season: 135 days. **Range**: 120 to 153 days.

For perennials, landscape plantings and fruit trees, see our Map of USDA Plant Hardiness Zones for Wisconsin.

Climate Normals	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Ave Daily High (F°)	21.9	28.4	40.8	57.9	70.9	78.7	83.8	80.9	71.4	59.3	41.6	26.0
Ave Daily Low (F°)	1.5	6.5	19.9	33.3	44.3	53.3	58.6	56.3	47.7	37.1	24.3	8.9
Growing Degree Days	0	1	22	143	335	481	626	560	348	161	22	1
Heating Degree Days	1652	1330	1073	582	268	77	19	36	175	521	960	1473
Cooling Degree Days	0	0	0	0	38	107	211	148	13	0	0	0
Ave Precipitation (")	0.94	0.70	1.79	2.67	3.62	4.47	3.70	4.97	4.09	2.44	1.70	1.17
Ave Snowfall (")	10.6	6.1	7.7	1.1	0.0	0.0	0.0	0.0	0.0	0.2	4.8	10.0

Data from the weather station at Bloomer, latitude 45°06' N, longitude 91°29' W, elevation 982 ft.

Climate Notes

Press - Ctrl D - to save this page

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Search

DRAFT CONFIDENTIAL

DRAFT SCREENING SITE INSPECTION REPORT
FOR
HALLIE TOWN LANDFILL
CHIPPEWA FALLS, WISCONSIN
U.S. EPA ID: WID981095920
SS ID: NONE
TDD: F05-8905-015
PAN: FWI0149SA

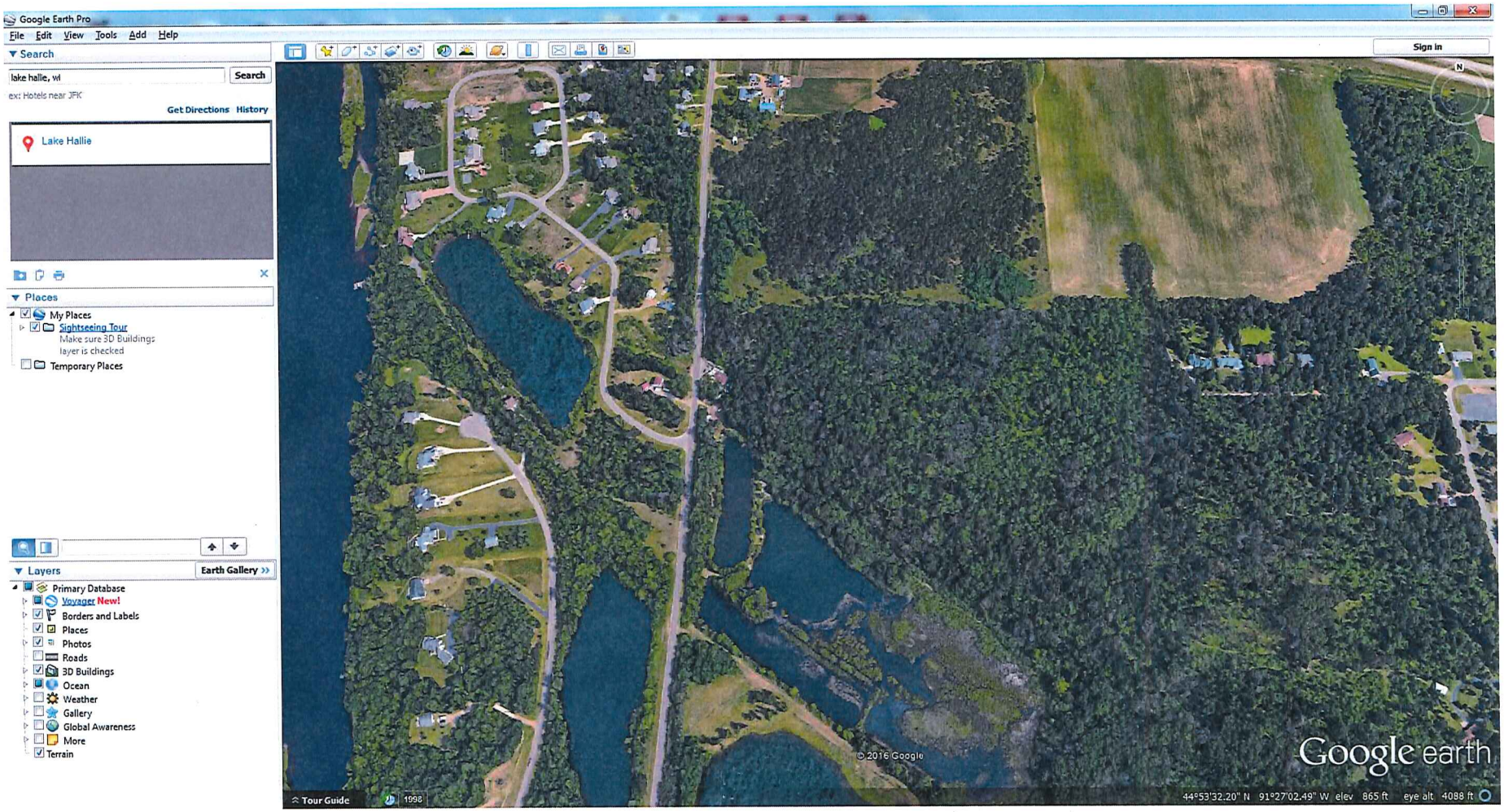
DECEMBER 14, 1989

This Draft Screening Site Inspection Report is considered confidential and pre-decisional in nature. Material and information contained within this report may not be released without the approval of the United States Environmental Protection Agency Region V Pre-Remedial Unit.

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment



Hallie Town Landfill #1771 and Surrounding Area
Google Earth

Preliminary Assessment Narrative
Wisconsin Department of Natural Resources

Site Name: Town of Hallie, Abandoned Landfill

EPA ID#: None

Location: Shafer Road (SW1/4, NW1/4, S23, T28N, R9W)

Prepared by: Vanessa Eigenbrodt (715/839-3738)

History of Site:

The Town of Hallie abandoned landfill was in operation from 1969 until 1978.

Volatile organic chemicals were reported to have possibly been dumped into the landfill by Control Data, Inc. prior to 1972. After 1972 it was taken to Waste Research and Reclamation. Material may have been dumped from 1969 to 1972.

Area Description:

The site is located in Chippewa County about 1/4 of a mile east of the Chippewa River. The area is characteristic of alluvial outwash areas. Soils are mostly sands overlying sandstone bedrock.

The groundwater movement in the area is generally from the southeast toward the river. Surface drainage is generally very good allowing good percolation through to the groundwater.

Inspection Priority:

Low - Some private wells were sampled near the site and did not indicate detectable levels of contamination.

Comments:

The abandoned Hallie site is an old landfill. The possible VOC contamination was not reported until August, 1984. The dumping was probably done from 1969 to 1972. The Area DNR staff initiated some private well sampling in the area. The four wells sampled in 1984 did not indicate detectable limits of VOC's. Groundwater monitoring wells are suggested to be installed for tracking any contaminant movement. The site was properly abandoned by June, 1981.

Site Inspection Contact Persons:

George Anderson - (715/839-3709) Wisconsin DNR
Mr. Zealious Joles - (715/723-9268) Chairman, Town of Hallie

Role of DNR District Site Inspection:

Site access and briefing by assigned staff. They will assist the F.I.T. with the site inspection up to the level "D" protection.

State of Wisconsin
Department of Natural Resources

Pre-CERCLIS Screening Worksheet

Form 4400-219 (3/01)

Instructions: Information sources that can be used to fill out this worksheet include: BRRTS, SHWIMS, R&R files, WA files, regional geologic information resources, Waste Staff, County Solid Waste staff (if there is one for the county) and the EPA web site for CERCLIS. Other possible resources may include: city/town files, county files, aerial photos, readily available Sanborn Insurance maps and interviews with former employees or neighbors.

All comments should be referenced by section number in the Comments section, page 5.

I. Site Name

Site Name	County	Region
Hallie Town Landfill	Chippewa	West Central

Location: Off of Shafer Rd. - 110th St, Town of Hallie

Is the site known by another name(s)? ☐ Yes ☐ No ☐ Unknown

☐ City ☐ Town ☐ Village of — State: WI

If yes, Name: Hallie Halogenated Landfill

II. Legal Description of Site

Attach a map with site location and limits of fill/waste disposal area.

A. Has site been geolocated? ☐ Yes ☒ No

B. Locational Information: Other Sources

Latitude*	Longitude*
44° 53' 30"	91° 27' 00"

Date

¼ / ¼	¼	Section	Township	Range
SW	NW	23	28 N	9 W

*Latitude and Longitude information is required on EPA screening checklist.

III. Site Background Information

Responsible Municipal/Private Operator Name: Township of Hallie

Street or Route: 13033 Cty Hwy OO — Telephone Number: (715) 720-8088

City: Chippewa Falls — State: WI — ZIP Code: 54729

Present Property Owner Name: Township of Hallie

Street or Route: same — Telephone Number: same

City: same — State: — ZIP Code: —

Previous Property Owner Name: Unknown prior to 1955

Street or Route: — Telephone Number: —

City: — State: — ZIP Code: —

IV. Waste Disposal Site's Regulatory ID Numbers

DNR FID No. (9 digits): 609011810

☐ TEMP — Solid Waste License ID No. (4 digits): 1771

Hazardous Waste Facility License ID No. (5 digits):

USEPA ID No. (used for both RCRA and CERCLIS #s) (WI+Alpha+9 digit): WID 981095720

BRRTS ID No. (2 digit program-2 digit county-6 digit site specific): 02-09-000044

BRRTS Activity Name

☐ LUST ☒ ERP ☐ SPILL ☐ VPLE ☐ Superfund

SHWIMS Site ID No.: 169850

Other:

V. Type of Site: Current and Historic (check all that apply)

A. ☒ Landfill

- ☐ Approved
- ☒ Licensed
- ☐ Lined
  - ☐ Composite liner
  - ☐ Clay liner
  - ☐ Other liner (silt or other)
- ☐ Non-approved [see s.289.01(3) Wis. Stats]
- ☐ Unlicensed
- ☒ Unlined
- ☐ Unengineered
- ☒ Construction/Demolition
- ☐ One-time disposal
- ☒ < 50,000 cubic yards
- ☐ 50,000-500,000 cubic yards
- ☐ 500,000-1 million cubic yards
- ☐ 1-2 million cubic yards
- ☐ 2-5 million cubic yards
- ☐ 5-10 million cubic yards
- ☐ 10-20 million cubic yards

DEPARTMENT OF NATURAL RESOURCES

SOLID WASTE INCIDENT REPORT
FORM 4400-31
1-77

DESCRIPTION OF INCIDENT
Control DATA supposedly dumped 1-1 Trichloroethane & Trichloroethylene into the old Hallie Landfill (Lic. No. 1771) prior to 1972. After 1972 material was taken to waste Research & Reclamation. Material may have been dumped from 1962 to 1972.

DATE OCCURRED	LOCATION	COUNTY
1972	SW ¼ NW ¼ SECTION 23 T 28 R 9W	Chippewa

ADDRESS (IF NEEDED)

NAME OF OWNER/OPERATOR	LICENSE NUMBER
TN. of Hallie	1771
STREET OR ROUTE	CITY, STATE, ZIP CODE

NAMES OF PERSONS INVOLVED
Control DATA
Zealious Jones - chrm. Town of Hallie.

TYPE OF OPERATION

	INDUSTRIES	TYPE OF WASTE	FORM	QUANTITY
1.	Control DATA	Volatile Organics	Liq. D	7100 gals
2.				(>)100 gals?
3.				
4.				

PROBLEM INVOLVED (INDICATE IF PHOTOS ARE AVAILABLE)
private wells near old Landfill
No groundwater monitoring wells at site.

CORRECTIVE ACTION TAKEN
Sample private wells near old landfill
Install groundwater monitoring wells at landfill.

CORRECTIVE LEGAL/TECHNICAL ACTION RECOMMENDED

COMMENTS
Information provide by Jerry Simpson 834-2537
6601 North Shore Drive, Eau Claire. Mr. Simpson was at one time employed by Control Data now works for Cray Research.

SIGNATURE	DATE
Jack Tratt	8/24/84

REX SYSTEMS INCORPORATED

"The Speed of Technology is the Best Defense"

ABOUT REX SYSTEMS INCORPORATED

Vision

Lead the industry with technology driven integrated systems that provide maximum effectiveness for military and civilian needs.

Mission

Founded in 1973 as a veteran owned business, Rex Systems Incorporated (RSI) engineers, manufactures, and tests defense and civilian electronic components and networked computer systems. We provide superior quality and cost savings through innovation and rapid in-house development guided by over 40 years D.O.D electronics contract leadership. Success is ensured through employee empowerment, commitment, and experience.

Legacy

RSI was incorporated in Racine, Wisconsin in 1973. In 1978 RSI relocated to Chippewa Falls and in 1986 to a new 24,000 Sq. Ft. facility within its 60 acre industrial campus. Our core business has been the manufacture of high reliability military electronic spare/radar parts.

Today, RSI is simultaneously performing on approximately 120 defense contracts annually with eleven U.S. D.O.D agencies, major prime contractors, and foreign governments.

- NAVSEA
- Raytheon
- Lockheed Martin
- Boeing
- United Defense
- BAE Systems

RSI has been prime contractor on over 4,500 electronic U.S. military contracts. Our experience ensures expertise with Federal Acquisition Regulations and the requirements for standard representations, certifications, and qualifications.

RSI has expertise with federal acquisition regulations and the requirements for standard representations, certifications, and qualifications.

RSI holds numerous industry awards including being a two time recipient of the U.S. Department of Defense Contractor Assessment Program (CAP) for Excellence in Quality Assurance. See some of our awards.

FGIS Update Waste Registry ✓

State of Wisconsin
Department of Natural Resources

Waste Registry Screening Worksheet

Form 4400-220 (12/05)

Instructions: Information sources that can be used to fill out this worksheet include: BRRTS, SHWIMS, R&R files, WA files, regional geologic information resources, Waste Staff, County Solid Waste staff (if there is one for the county) and the EPA web site for CERCLIS. Other possible resources may include: city/town files, county files, aerial photos, readily available Sanborn Insurance maps and interviews with former employees or neighbors.

All comments should be referenced by section number in the Comments section, page 5.

I. Site Name

Site Name	County	Region
Hallie TN LF #1771	Chippewa	WC

Location	Is the site known by another name(s)?
110th ST	☑ Yes ☐ No ☐ Unknown

☐ City ☐ Town ☑ Village of Lake Hallie	State: WI	If yes, Name: TN Hallie - Halogenated Organics

II. Archiving Criteria

Check the archiving criteria that apply to the site, and provide an explanation for your choice on the comment page, Section XIII.

☐ 1. No documented waste disposal and no evidence on-site
☐ 2. Documented waste removal and no evidence on-site
☐ 3. Waste type is no longer regulated and is not a threat to public health, safety, welfare or the environment. [See NR500.08(1)&(2)]
☐ 4. Almost no site information and unable to locate site
☐ 5. Duplicate listing - Complete only Section VI. Do not complete remainder of worksheet

The site will be identified on Waste Registry Spreadsheet as "archived".

III. Recommendations for Follow-Up Work - - Summarize online and write details in comments, Section XIII.

1. Remediation and Redevelopment Program	☑ No ☐ Yes	
2. Waste Management Program	☑ No ☐ Yes	
3. Drinking and Groundwater Program (no variance for well)	☑ No ☐ Yes	

IV. Legal Description of Site

Attach an air photo with site location and limits of fill/waste disposal area based on available information.

Locational Information: Other Sources (optional - add polygon to comment page, Section XIII)

WI Transverse Mercator 83/91 Coordinates		¼ / ¼	¼	Section	Township	Range E / W
X Coordinates	Y Coordinates					
405714	492194	SW	NW	23	28 N	09 W

V. Waste Disposal Site's Regulatory ID Numbers

DNR FID No. (9 digits)	Solid Waste License ID No. (4 digits)	BRRTS ID No. (2 digit ERP program-2 digit county-6 digit site specific)
609011810	1771	

VI. Waste Registry Tracking Decision

Note: All sites, except archived sites, must be in SHWIMS or added to SHWIMS to be tracked as a waste disposal site.

SHWIMS: 170

☐ Site is in SHWIMS as a waste disposal site (070-079)

☑ Update information in SHWIMS, attach printout of data dump report or screening worksheet with changes highlighted for Waste Management Program Assistant

☐ Add site to SHWIMS as waste disposal site

BRRTS: _____

☐ Site is in BRRTS
- ☐ Associated with a release related to this waste disposal site
- ☐ Not associated with this waste disposal site

☐ Add site to BRRTS, following regional procedure

If BRRTS update is needed follow regional procedure.

Archive: _____ ☐ Archive site (see Section II)

Print Name of Screener	Date
Kitt Siegfried	10/19/2006

Name of File Reviewer, if different than screener

Jack Eslien

**********PHONE LOG**********

SITE NAME: Hallie Town Landfill #1771
TO: Mae Willkom
FROM: Craig Bowe
CONTACT:
TELEPHONE # (715) 726-2660 Ext. 4
AGENCY/FIRM: Village of Lake Hallie Street Dept.
DATE: 11/29/2016
TIME:

****

CONVERSATION SUMMARY:

C.B.: You left me a message last week?

M.W.: Yes, I'm seeking information about the accessibility of the old Hallie Town Landfill site off 110th Street. I visited the site earlier this month, but it did not appear accessible from its former entrance.

C.B.: I didn't know there was an old landfill, but I do know the Village posted "no trespassing" signs all along 110th Street because they own some parcels back in there.

M.W.: Yes, there is a small turnout on the east side of 110th at the top of the hill where there is some partial fencing. I believe that is the former LF entrance. There is an L-shaped parcel east of the road that was the former landfill. I spoke with Mike Downey about possibly getting access to the parcel in order to walk the site, and he referred me to you. After that, I realized from parcel maps that the site is not accessible from other directions without crossing private property. It may be accessible from the dirt road just south of Hwy 29 by driving east to the end of the dirt road, then turning south, but according to parcel mapping, that property is privately owned.

C.B.: Yes, Non-responsive owns that farm there and the Village only owns a small strip along the dirt road, and then it ends.

M.W.: Mr. Downey mentioned that a local farmer accesses the parcel occasionally to mulch milfoil vegetation that is collected by the Village from local surface water bodies. Are you aware of any other uses of the property by locals? A 1989 report mentioned hiking trails and campfire remains from parties, etc.

C.B.: No, they just use that parcel to dump that stuff, but we posted no trespassing signs so that anyone hunting back there would know not to go in there.

SW
F10 6090m P39.
PL MODIF

421 FRENETTE DRIVE, CHIPPEWA FALLS, WI 54729 715 720-6200 800 472-5881 FAX 715 720-6300
ARCHITECTURE • ENGINEERING • ENVIRONMENTAL • TRANSPORTATION

#2807

May 25, 1999

RE: Town of Hallie Sanitary Landfill
Plan Modification Request
SEH No. HALLI9501.01 14.00

Jack Tritt
Wisconsin Department of Natural Resources
1300 W. Clairemont Avenue
P.O. Box 4001
Eau Claire, WI 54702-4001

Dear Jack:

1.0 Introduction

This letter report and attachments are being resubmitted as per the WDNR's letter dated October 5, 1998. The documentation contained herein represents a plan modification request for a reduction in monitoring at the referenced site.

The Town of Hallie Landfill is located on a 40 acre parcel in the SE 1/4 of the NW 1/4 of Section 14, T28N, R9W, Chippewa County, Wisconsin. The landfill is approximately 3/4 mile east of the Chippewa River. There are residents with private water supply wells within 500 feet of the western limits of the landfill along Buck Run Road. The location of the landfill and the residential roads in the landfill area are shown on Figure 1, "Site Location."

The landfill operated from about 1953 until the fall of 1978. Waste consisted of demolition and municipal materials which was burned at the site until 1972. The limits of waste occupy approximately 4.9 acres. The unlined waste area was capped in 1988-1989 with a 4.5 foot thick cap. The cap includes a 2 foot thick fine grained soil layer as documented by the "Sanitary Landfill Closure Documentation" report prepared by Ayres Associates (dated June 1990). Site details are shown on Figure 2, "Site Plan."

2.0 Geology and Hydrogeology

Nine groundwater monitoring wells (MW-1, MW-2, MW-3, MW-3A, MW-4, MW-5, MW-A, MW-B and MW-C) have been installed at the site to monitor groundwater quality. MW-3A is a piezometer. In addition, three gas probes (GP-1, GP-2 and GP-3) have been installed to monitor for landfill gas migration. The groundwater monitoring wells are constructed with two inch diameter PVC screens and risers and locking steel protective tops. The gas probes are constructed with one inch diameter PVC screens and risers and locking steel protective tops. The wells and probes are in good condition with no need of repairs. The locations of the monitoring points are shown on Figure 2, "Site Plan." The construction documentation of the monitoring wells is limited. Details of the monitoring well and gas probe construction are in Attachment A, "Monitoring Well/Gas Probe Documentation."

According to the "Bedrock Geology of Wisconsin, West Central Sheet" (1988) prepared by the Wisconsin Geological and Natural History Survey, and the soil boring log from MW-5, the Cambrian age Mt. Simon Sandstone is approximately 70 feet below grade at the landfill site. The sandstone is overlain by poorly graded sands (SP) associated with the glacial outwash deposits of the area.

Demographic and Income Profile

Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 0 - 0.25 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

Summary	Census 2010	2016	2021
Population	177	161	173
Households	70	64	69
Families	49	45	48
Average Household Size	2.51	2.50	2.49
Owner Occupied Housing Units	59	53	57
Renter Occupied Housing Units	11	11	12
Median Age	37.7	38.4	38.3

Trends: 2016 - 2021 Annual Rate	Area	State	National
Population	1.45%	0.35%	0.84%
Households	1.52%	0.40%	0.79%
Families	1.30%	0.34%	0.72%
Owner HHs	1.47%	0.38%	0.73%
Median Household Income	1.62%	2.10%	1.89%

	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	3	4.7%	3	4.3%
$15,000 - $24,999	9	14.1%	9	13.0%
$25,000 - $34,999	5	7.8%	6	8.7%
$35,000 - $49,999	4	6.2%	2	2.9%
$50,000 - $74,999	12	18.8%	11	15.9%
$75,000 - $99,999	13	20.3%	14	20.3%
$100,000 - $149,999	14	21.9%	19	27.5%
$150,000 - $199,999	3	4.7%	3	4.3%
$200,000+	2	3.1%	2	2.9%
Median Household Income	$73,534		$79,677	
Average Household Income	$79,268		$88,204	
Per Capita Income	$31,933		$35,631	

	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	13	7.4%	11	6.8%	11	6.4%
5 - 9	11	6.3%	11	6.8%	12	6.9%
10 - 14	10	5.7%	10	6.2%	13	7.5%
15 - 19	11	6.3%	8	5.0%	10	5.8%
20 - 24	10	5.7%	8	5.0%	7	4.0%
25 - 34	26	14.9%	25	15.5%	23	13.3%
35 - 44	22	12.6%	22	13.7%	27	15.6%
45 - 54	32	18.3%	20	12.4%	19	11.0%
55 - 64	24	13.7%	25	15.5%	24	13.9%
65 - 74	10	5.7%	14	8.7%	18	10.4%
75 - 84	5	2.9%	5	3.1%	7	4.0%
85+	1	0.6%	2	1.2%	2	1.2%

	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	171	97.2%	154	95.1%	165	94.8%
Black Alone	1	0.6%	1	0.6%	1	0.6%
American Indian Alone	1	0.6%	1	0.6%	2	1.1%
Asian Alone	1	0.6%	2	1.2%	2	1.1%
Pacific Islander Alone	0	0.0%	0	0.0%	0	0.0%
Some Other Race Alone	0	0.0%	1	0.6%	1	0.6%
Two or More Races	2	1.1%	3	1.9%	3	1.7%
Hispanic Origin (Any Race)	3	1.7%	2	1.2%	4	2.3%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Demographic and Income Profile

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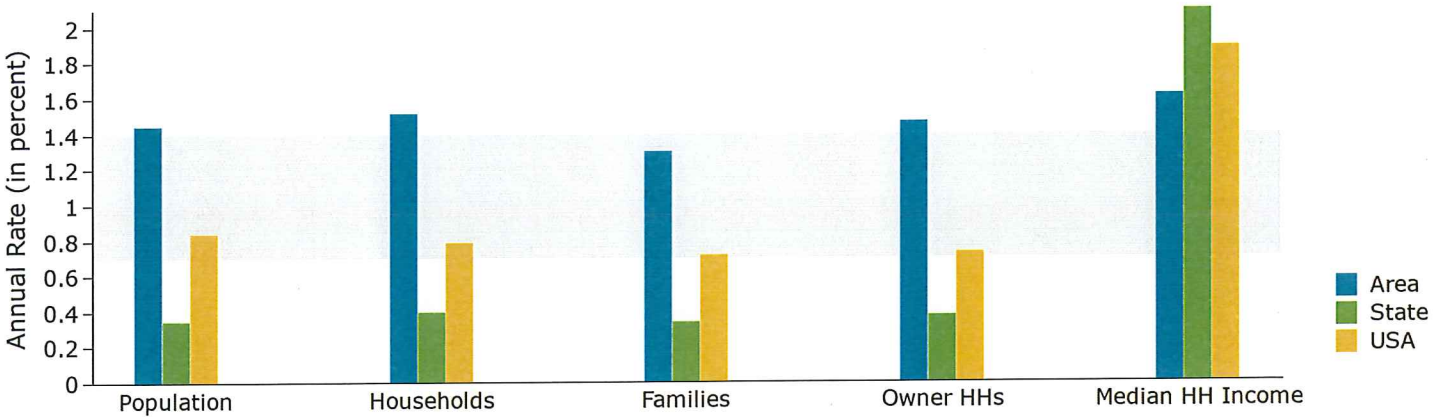
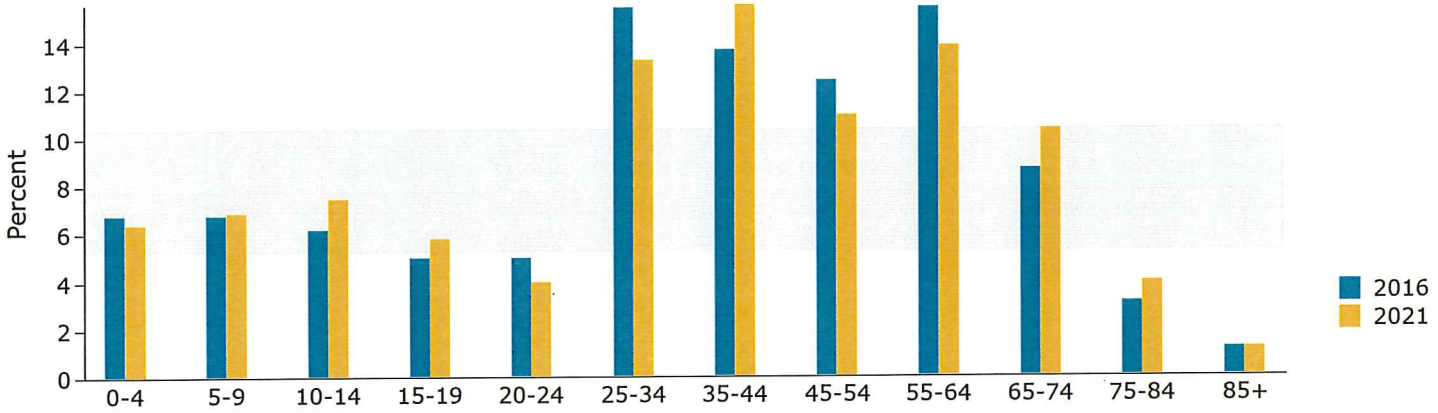
Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

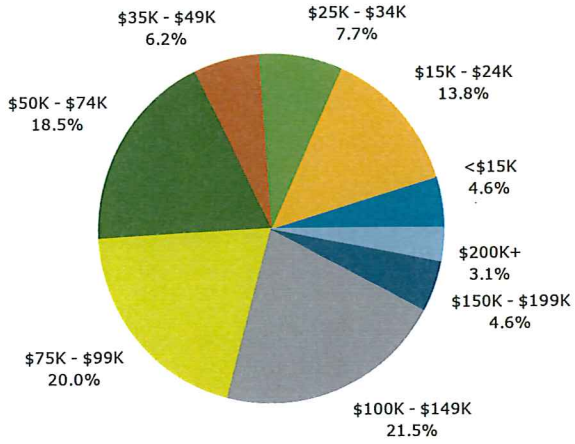
Trends 2016-2021



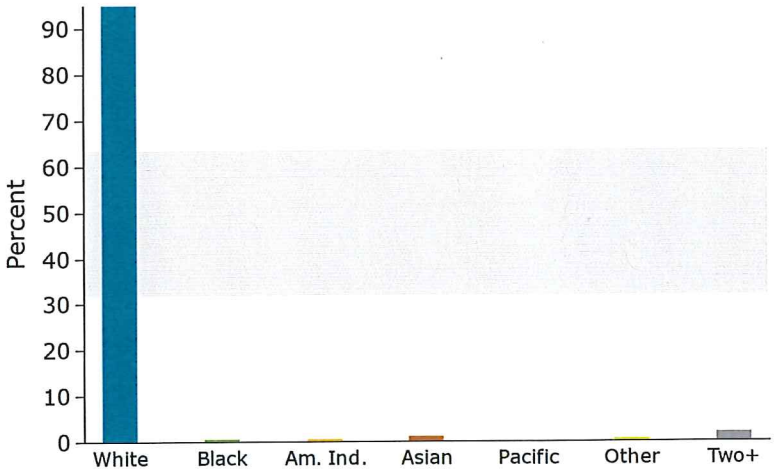
Population by Age



2016 Household Income



2016 Population by Race



2016 Percent Hispanic Origin: 1.2%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Demographic and Income Profile

Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 0.25 - 0.5 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

Summary	Census 2010	2016	2021
Population	118	135	145
Households	40	46	50
Families	28	32	35
Average Household Size	2.92	2.91	2.90
Owner Occupied Housing Units	33	38	41
Renter Occupied Housing Units	7	8	9
Median Age	38.8	38.6	38.5

Trends: 2016 - 2021 Annual Rate	Area	State	National
Population	1.44%	0.35%	0.84%
Households	1.68%	0.40%	0.79%
Families	1.81%	0.34%	0.72%
Owner HHs	1.53%	0.38%	0.73%
Median Household Income	2.81%	2.10%	1.89%

	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	2	4.3%	2	4.0%
$15,000 - $24,999	7	15.2%	6	12.0%
$25,000 - $34,999	4	8.7%	4	8.0%
$35,000 - $49,999	3	6.5%	2	4.0%
$50,000 - $74,999	9	19.6%	8	16.0%
$75,000 - $99,999	9	19.6%	10	20.0%
$100,000 - $149,999	10	21.7%	13	26.0%
$150,000 - $199,999	2	4.3%	2	4.0%
$200,000+	1	2.2%	2	4.0%
Median Household Income	$69,374		$79,671	
Average Household Income	$79,270		$87,489	
Per Capita Income	$31,933		$35,646	

	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	8	6.8%	9	6.7%	10	6.8%
5 - 9	7	5.9%	9	6.7%	10	6.8%
10 - 14	7	5.9%	8	5.9%	11	7.4%
15 - 19	7	5.9%	7	5.2%	8	5.4%
20 - 24	7	5.9%	7	5.2%	6	4.1%
25 - 34	17	14.4%	21	15.6%	20	13.5%
35 - 44	15	12.7%	18	13.3%	23	15.5%
45 - 54	21	17.8%	17	12.6%	17	11.5%
55 - 64	17	14.4%	21	15.6%	20	13.5%
65 - 74	7	5.9%	12	8.9%	16	10.8%
75 - 84	4	3.4%	5	3.7%	5	3.4%
85+	1	0.8%	1	0.7%	2	1.4%

	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	114	95.8%	129	96.3%	138	94.5%
Black Alone	1	0.8%	1	0.7%	1	0.7%
American Indian Alone	1	0.8%	1	0.7%	1	0.7%
Asian Alone	1	0.8%	1	0.7%	2	1.4%
Pacific Islander Alone	0	0.0%	0	0.0%	0	0.0%
Some Other Race Alone	0	0.0%	0	0.0%	1	0.7%
Two or More Races	2	1.7%	2	1.5%	3	2.1%
Hispanic Origin (Any Race)	2	1.7%	2	1.5%	4	2.8%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Demographic and Income Profile

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Ring Band: 0.25 - 0.5 mile radius

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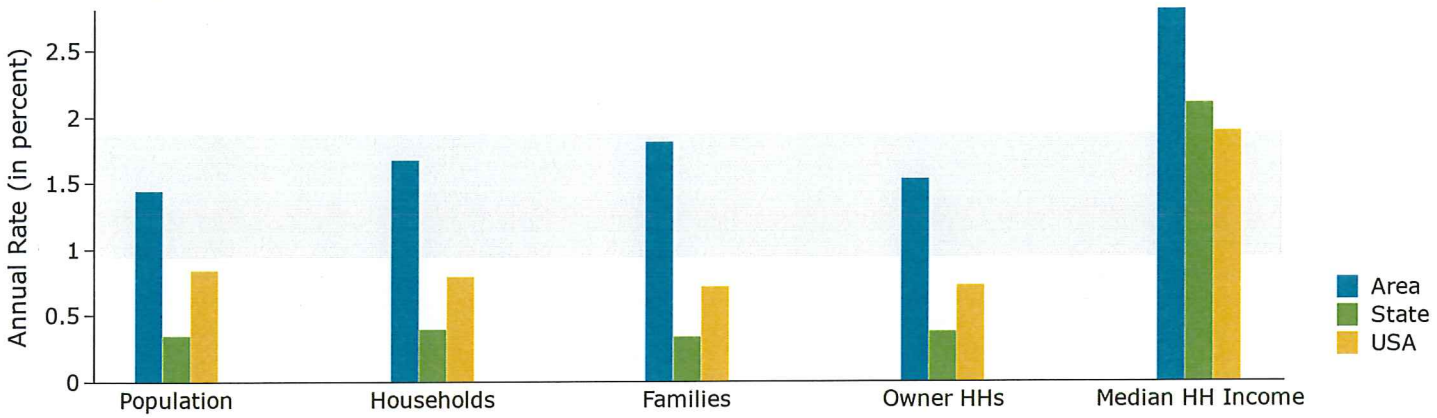
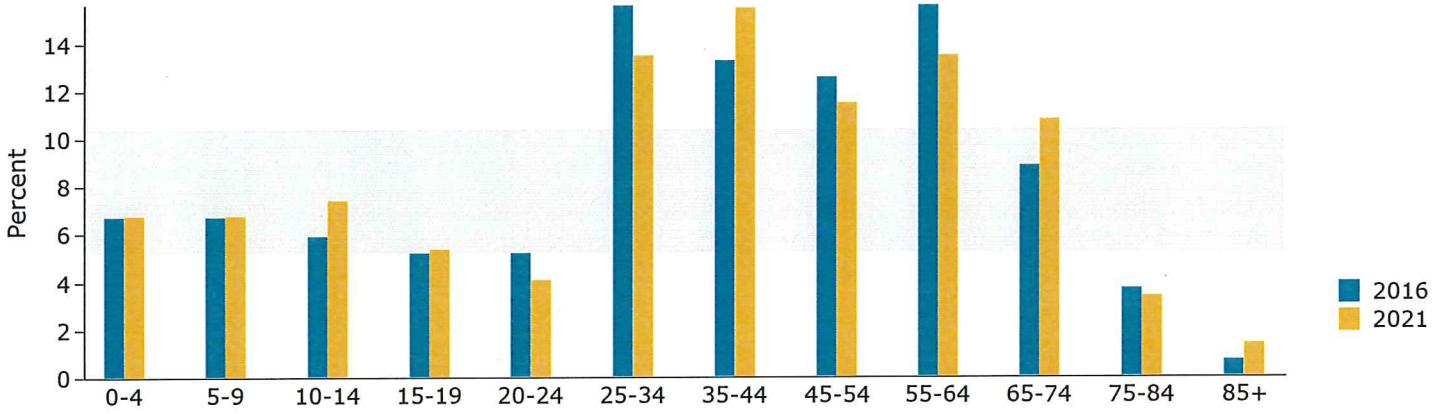
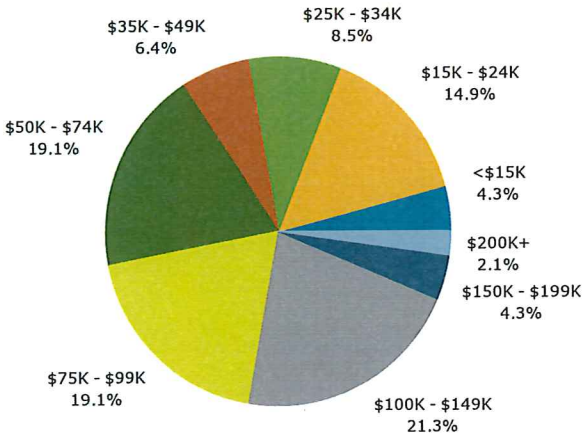
Trends 2016-2021



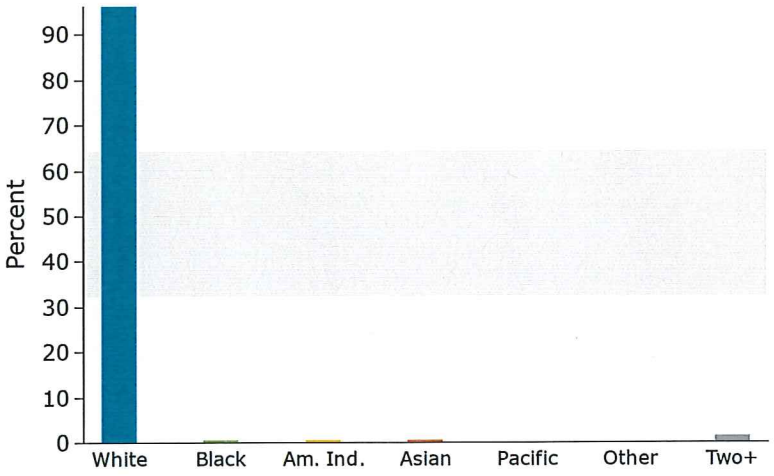
Population by Age



2016 Household Income



2016 Population by Race



2016 Percent Hispanic Origin: 1.5%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Demographic and Income Profile

Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 0.5 - 1 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

Summary	Census 2010	2016	2021
Population	637	718	759
Households	245	276	293
Families	174	195	206
Average Household Size	2.59	2.59	2.58
Owner Occupied Housing Units	213	236	250
Renter Occupied Housing Units	32	40	43
Median Age	39.2	39.8	39.8

Trends: 2016 - 2021 Annual Rate	Area	State	National
Population	1.12%	0.35%	0.84%
Households	1.20%	0.40%	0.79%
Families	1.10%	0.34%	0.72%
Owner HHs	1.16%	0.38%	0.73%
Median Household Income	3.80%	2.10%	1.89%

	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	12	4.3%	13	4.4%
$15,000 - $24,999	38	13.8%	36	12.3%
$25,000 - $34,999	22	8.0%	26	8.9%
$35,000 - $49,999	35	12.7%	21	7.2%
$50,000 - $74,999	51	18.5%	48	16.4%
$75,000 - $99,999	50	18.1%	58	19.8%
$100,000 - $149,999	54	19.6%	73	24.9%
$150,000 - $199,999	7	2.5%	10	3.4%
$200,000+	7	2.5%	8	2.7%
Median Household Income	$62,851		$75,744	
Average Household Income	$73,871		$82,417	
Per Capita Income	$29,889		$33,521	

	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	42	6.6%	45	6.3%	47	6.2%
5 - 9	42	6.6%	48	6.7%	49	6.4%
10 - 14	38	6.0%	47	6.5%	54	7.1%
15 - 19	36	5.7%	38	5.3%	45	5.9%
20 - 24	36	5.7%	34	4.7%	31	4.1%
25 - 34	88	13.8%	101	14.1%	93	12.2%
35 - 44	82	12.9%	96	13.4%	115	15.1%
45 - 54	110	17.3%	95	13.2%	90	11.8%
55 - 64	91	14.3%	113	15.7%	107	14.1%
65 - 74	41	6.4%	67	9.3%	87	11.4%
75 - 84	25	3.9%	27	3.8%	32	4.2%
85+	5	0.8%	7	1.0%	10	1.3%

	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	603	94.7%	672	93.9%	703	92.6%
Black Alone	3	0.5%	3	0.4%	4	0.5%
American Indian Alone	4	0.6%	5	0.7%	7	0.9%
Asian Alone	13	2.0%	18	2.5%	23	3.0%
Pacific Islander Alone	0	0.0%	0	0.0%	0	0.0%
Some Other Race Alone	3	0.5%	4	0.6%	5	0.7%
Two or More Races	11	1.7%	14	2.0%	17	2.2%
Hispanic Origin (Any Race)	9	1.4%	14	1.9%	19	2.5%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

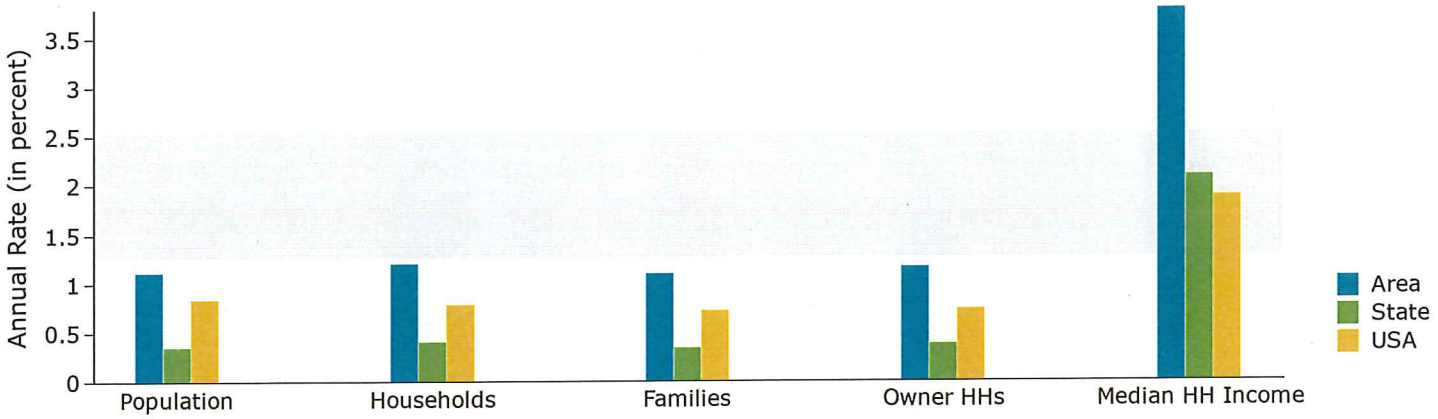
November 14, 2016

Demographic and Income Profile

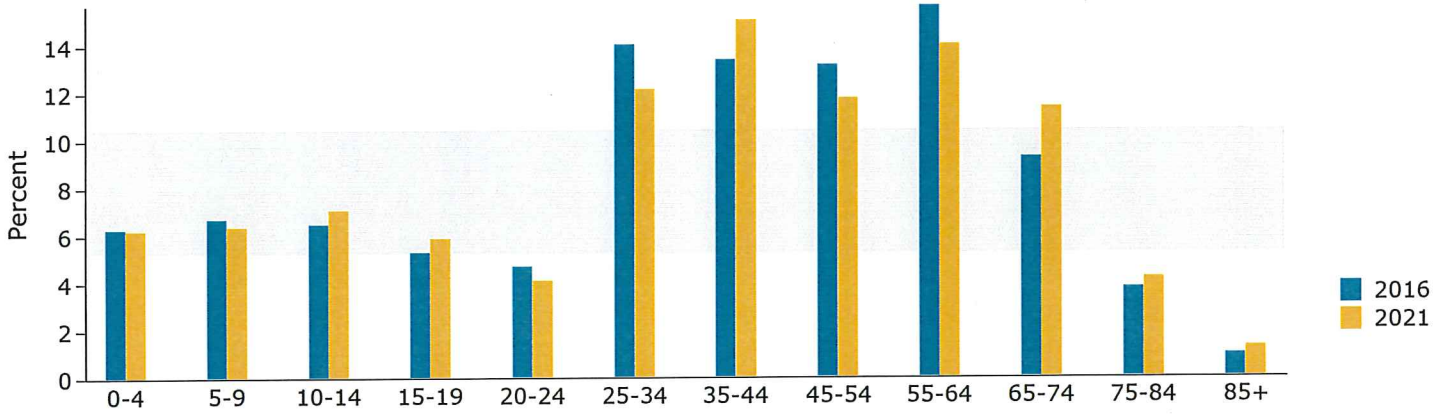
Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 0.5 - 1 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

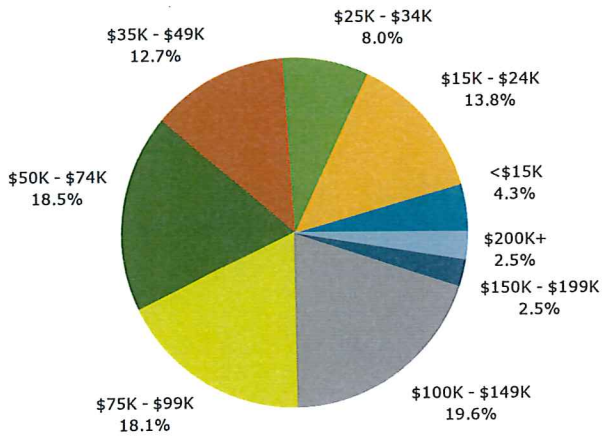
Trends 2016-2021



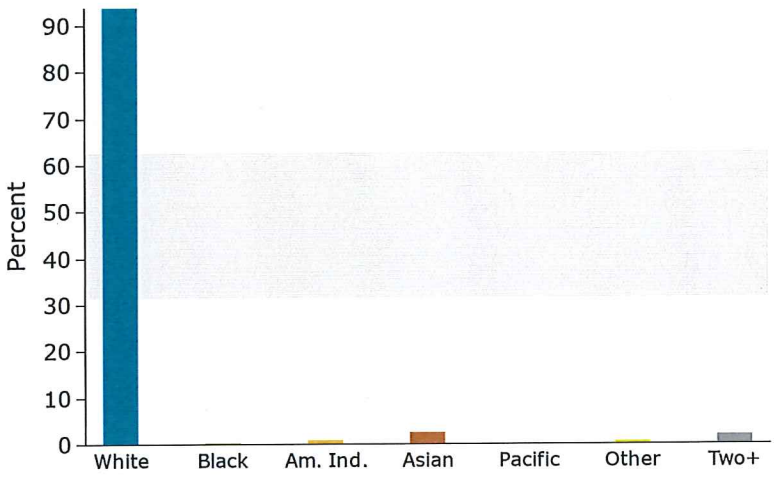
Population by Age



2016 Household Income



2016 Population by Race



2016 Percent Hispanic Origin: 1.9%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Demographic and Income Profile

Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 1 - 2 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

Summary	Census 2010	2016	2021
Population	2,987	3,168	3,296
Households	1,121	1,208	1,267
Families	792	847	885
Average Household Size	2.66	2.61	2.59
Owner Occupied Housing Units	852	896	936
Renter Occupied Housing Units	269	311	331
Median Age	35.9	36.5	37.0

Trends: 2016 - 2021 Annual Rate	Area	State	National
Population	0.80%	0.35%	0.84%
Households	0.96%	0.40%	0.79%
Families	0.88%	0.34%	0.72%
Owner HHs	0.88%	0.38%	0.73%
Median Household Income	1.84%	2.10%	1.89%

	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	96	7.9%	103	8.1%
$15,000 - $24,999	122	10.1%	119	9.4%
$25,000 - $34,999	127	10.5%	146	11.5%
$35,000 - $49,999	164	13.6%	101	8.0%
$50,000 - $74,999	283	23.4%	294	23.2%
$75,000 - $99,999	211	17.5%	238	18.8%
$100,000 - $149,999	162	13.4%	212	16.7%
$150,000 - $199,999	22	1.8%	30	2.4%
$200,000+	20	1.7%	25	2.0%
Median Household Income	$56,006		$61,341	
Average Household Income	$66,137		$72,407	
Per Capita Income	$25,596		$28,206	

	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	236	7.9%	239	7.5%	243	7.4%
5 - 9	209	7.0%	238	7.5%	246	7.5%
10 - 14	201	6.7%	216	6.8%	252	7.6%
15 - 19	184	6.2%	184	5.8%	205	6.2%
20 - 24	195	6.5%	173	5.5%	163	4.9%
25 - 34	432	14.5%	469	14.8%	436	13.2%
35 - 44	385	12.9%	421	13.3%	476	14.4%
45 - 54	450	15.1%	395	12.5%	380	11.5%
55 - 64	363	12.2%	422	13.3%	408	12.4%
65 - 74	189	6.3%	258	8.1%	316	9.6%
75 - 84	118	4.0%	118	3.7%	131	4.0%
85+	25	0.8%	34	1.1%	41	1.2%

	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	2,696	90.3%	2,796	88.3%	2,848	86.4%
Black Alone	23	0.8%	24	0.8%	24	0.7%
American Indian Alone	15	0.5%	19	0.6%	23	0.7%
Asian Alone	187	6.3%	246	7.8%	300	9.1%
Pacific Islander Alone	0	0.0%	0	0.0%	0	0.0%
Some Other Race Alone	15	0.5%	21	0.7%	28	0.8%
Two or More Races	51	1.7%	62	2.0%	74	2.2%
Hispanic Origin (Any Race)	47	1.6%	67	2.1%	85	2.6%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

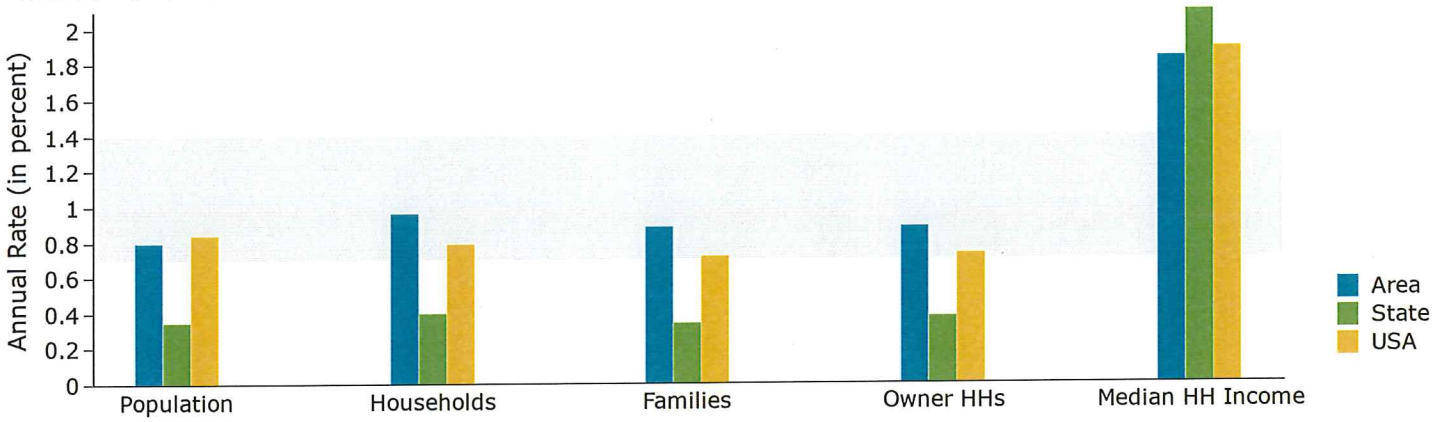
November 14, 2016

Demographic and Income Profile

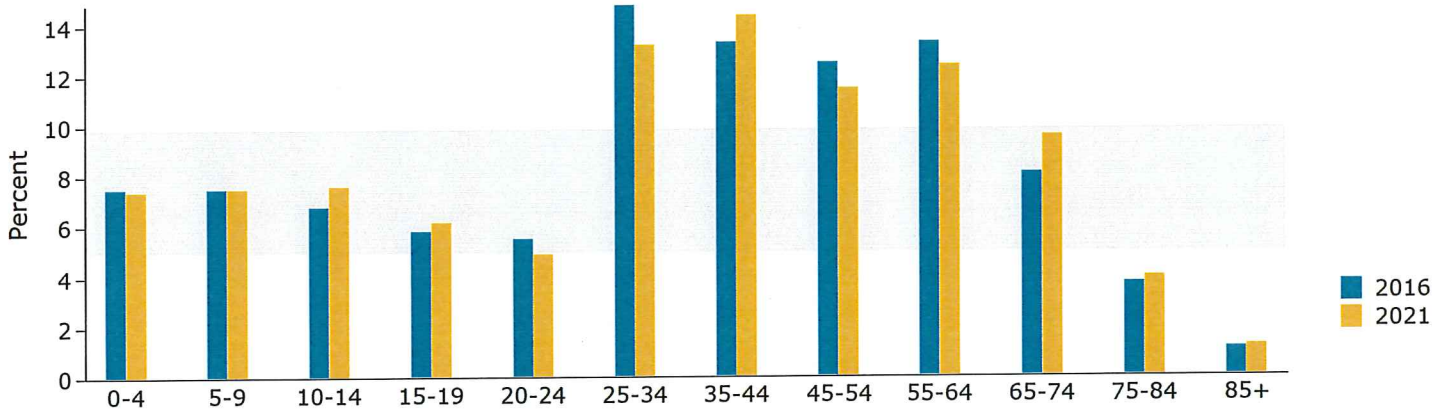
Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 1 - 2 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

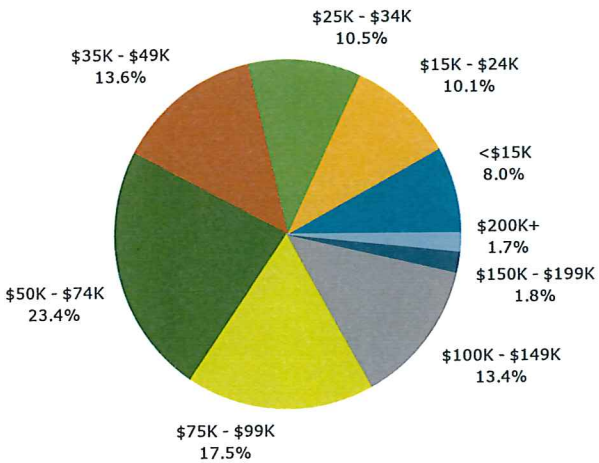
Trends 2016-2021



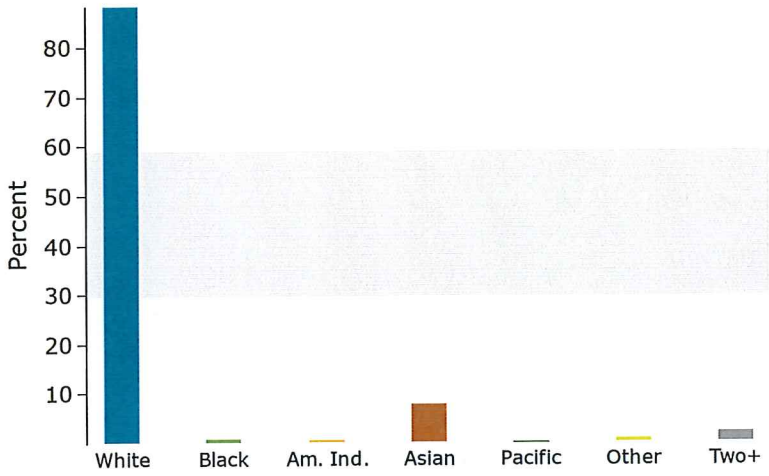
Population by Age



2016 Household Income



2016 Population by Race



2016 Percent Hispanic Origin: 2.1%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Demographic and Income Profile

Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 2 - 3 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

Summary	Census 2010	2016	2021
Population	5,594	5,813	5,960
Households	2,196	2,316	2,390
Families	1,581	1,655	1,701
Average Household Size	2.54	2.50	2.48
Owner Occupied Housing Units	1,597	1,637	1,683
Renter Occupied Housing Units	599	679	707
Median Age	35.7	36.7	37.4

Trends: 2016 - 2021 Annual Rate	Area	State	National
Population	0.50%	0.35%	0.84%
Households	0.63%	0.40%	0.79%
Families	0.55%	0.34%	0.72%
Owner HHs	0.56%	0.38%	0.73%
Median Household Income	2.03%	2.10%	1.89%

	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	148	6.4%	155	6.5%
$15,000 - $24,999	171	7.4%	170	7.1%
$25,000 - $34,999	223	9.6%	258	10.8%
$35,000 - $49,999	365	15.8%	209	8.7%
$50,000 - $74,999	635	27.4%	634	26.5%
$75,000 - $99,999	405	17.5%	477	20.0%
$100,000 - $149,999	241	10.4%	320	13.4%
$150,000 - $199,999	69	3.0%	95	4.0%
$200,000+	59	2.5%	72	3.0%
Median Household Income	$57,100		$63,128	
Average Household Income	$69,766		$77,335	
Per Capita Income	$27,146		$30,278	

	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	439	7.8%	430	7.4%	432	7.2%
5 - 9	402	7.2%	437	7.5%	446	7.5%
10 - 14	411	7.3%	403	6.9%	461	7.7%
15 - 19	345	6.2%	358	6.2%	373	6.3%
20 - 24	340	6.1%	303	5.2%	288	4.8%
25 - 34	807	14.4%	839	14.4%	758	12.7%
35 - 44	716	12.8%	775	13.3%	879	14.8%
45 - 54	792	14.2%	727	12.5%	686	11.5%
55 - 64	685	12.2%	742	12.8%	718	12.0%
65 - 74	357	6.4%	495	8.5%	579	9.7%
75 - 84	216	3.9%	213	3.7%	250	4.2%
85+	83	1.5%	90	1.5%	89	1.5%

	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	5,204	93.0%	5,312	91.4%	5,352	89.8%
Black Alone	36	0.6%	38	0.7%	41	0.7%
American Indian Alone	21	0.4%	26	0.4%	30	0.5%
Asian Alone	232	4.1%	302	5.2%	366	6.1%
Pacific Islander Alone	0	0.0%	0	0.0%	0	0.0%
Some Other Race Alone	27	0.5%	39	0.7%	53	0.9%
Two or More Races	75	1.3%	96	1.7%	117	2.0%
Hispanic Origin (Any Race)	94	1.7%	133	2.3%	172	2.9%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

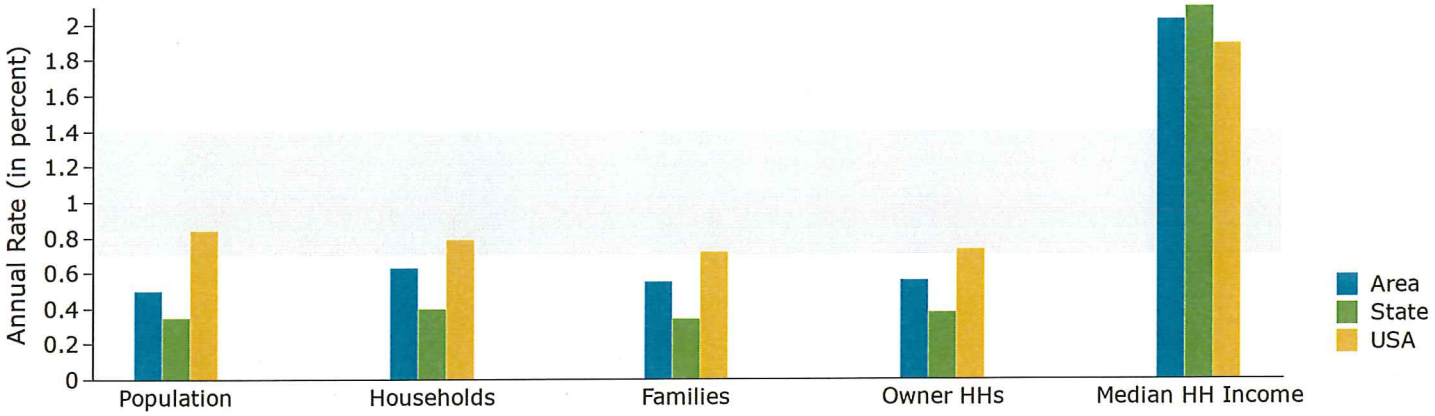
November 14, 2016

Demographic and Income Profile

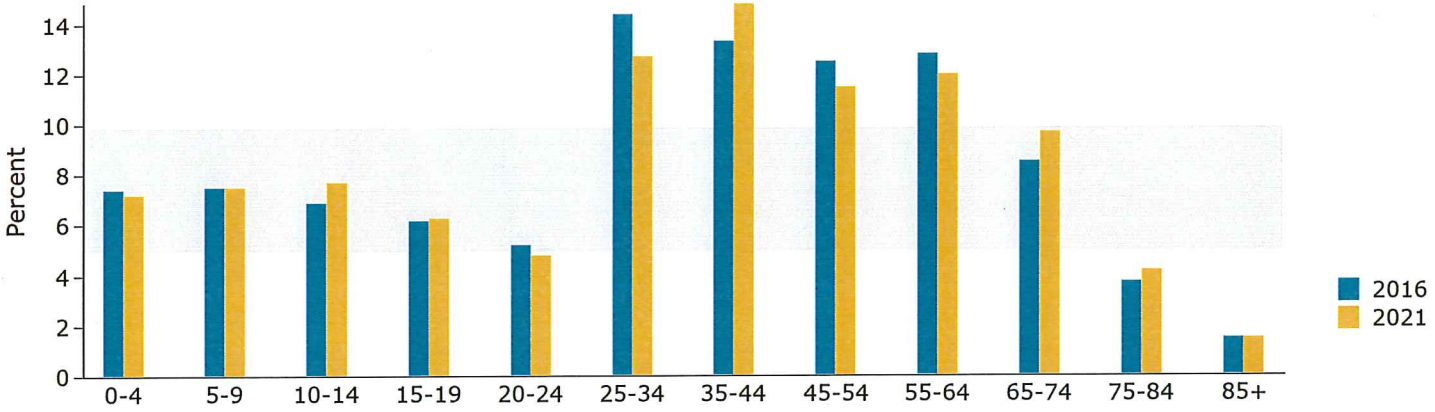
Hallie Tn LF
X:-91.4460407 Y:44.8939064
Ring Band: 2 - 3 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

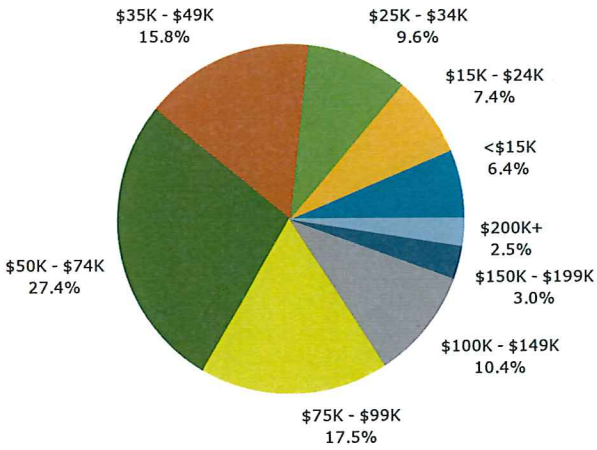
Trends 2016-2021



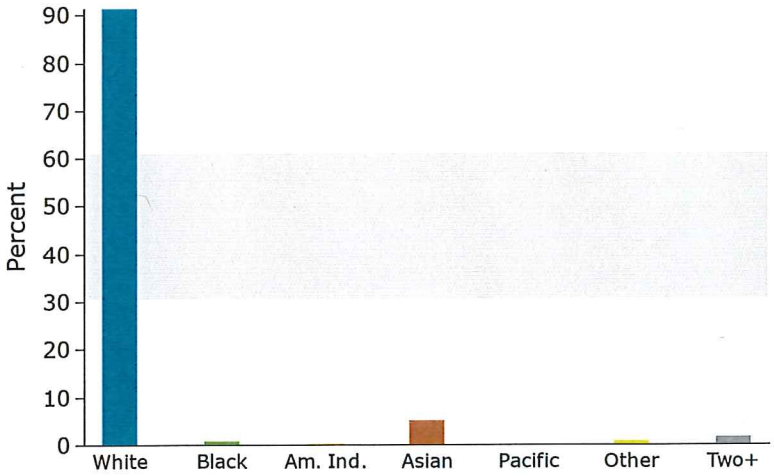
Population by Age



2016 Household Income



2016 Population by Race



2016 Percent Hispanic Origin: 2.3%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Demographic and Income Profile

Hallie TN LF
X:-91.4460407 Y:44.8939064
Ring Band: 3 - 4 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

Summary	Census 2010	2016	2021
Population	14,974	15,113	15,258
Households	6,179	6,264	6,342
Families	4,151	4,177	4,215
Average Household Size	2.39	2.38	2.37
Owner Occupied Housing Units	4,679	4,645	4,729
Renter Occupied Housing Units	1,500	1,619	1,613
Median Age	40.0	40.8	41.1

Trends: 2016 - 2021 Annual Rate	Area	State	National
Population	0.19%	0.35%	0.84%
Households	0.25%	0.40%	0.79%
Families	0.18%	0.34%	0.72%
Owner HHs	0.36%	0.38%	0.73%
Median Household Income	2.03%	2.10%	1.89%

	2016		2021	
Households by Income	Number	Percent	Number	Percent
<$15,000	610	9.7%	626	9.9%
$15,000 - $24,999	664	10.6%	654	10.3%
$25,000 - $34,999	603	9.6%	647	10.2%
$35,000 - $49,999	1,021	16.3%	619	9.8%
$50,000 - $74,999	1,337	21.3%	1,400	22.1%
$75,000 - $99,999	926	14.8%	1,027	16.2%
$100,000 - $149,999	782	12.5%	954	15.0%
$150,000 - $199,999	204	3.3%	275	4.3%
$200,000+	119	1.9%	141	2.2%
Median Household Income	$52,985		$58,597	
Average Household Income	$65,285		$71,994	
Per Capita Income	$27,161		$30,018	

	Census 2010		2016		2021	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	958	6.4%	916	6.1%	905	5.9%
5 - 9	1,008	6.7%	934	6.2%	940	6.2%
10 - 14	978	6.5%	941	6.2%	950	6.2%
15 - 19	995	6.6%	918	6.1%	927	6.1%
20 - 24	774	5.2%	863	5.7%	764	5.0%
25 - 34	1,890	12.6%	1,945	12.9%	1,945	12.7%
35 - 44	1,883	12.6%	1,809	12.0%	1,937	12.7%
45 - 54	2,301	15.4%	2,042	13.5%	1,840	12.1%
55 - 64	1,999	13.4%	2,154	14.3%	2,115	13.9%
65 - 74	1,088	7.3%	1,475	9.8%	1,750	11.5%
75 - 84	773	5.2%	750	5.0%	847	5.6%
85+	326	2.2%	365	2.4%	340	2.2%

	Census 2010		2016		2021	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	14,291	95.4%	14,276	94.5%	14,263	93.5%
Black Alone	75	0.5%	84	0.6%	95	0.6%
American Indian Alone	67	0.4%	78	0.5%	88	0.6%
Asian Alone	351	2.3%	436	2.9%	517	3.4%
Pacific Islander Alone	2	0.0%	3	0.0%	4	0.0%
Some Other Race Alone	25	0.2%	32	0.2%	41	0.3%
Two or More Races	163	1.1%	205	1.4%	250	1.6%
Hispanic Origin (Any Race)	165	1.1%	225	1.5%	290	1.9%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

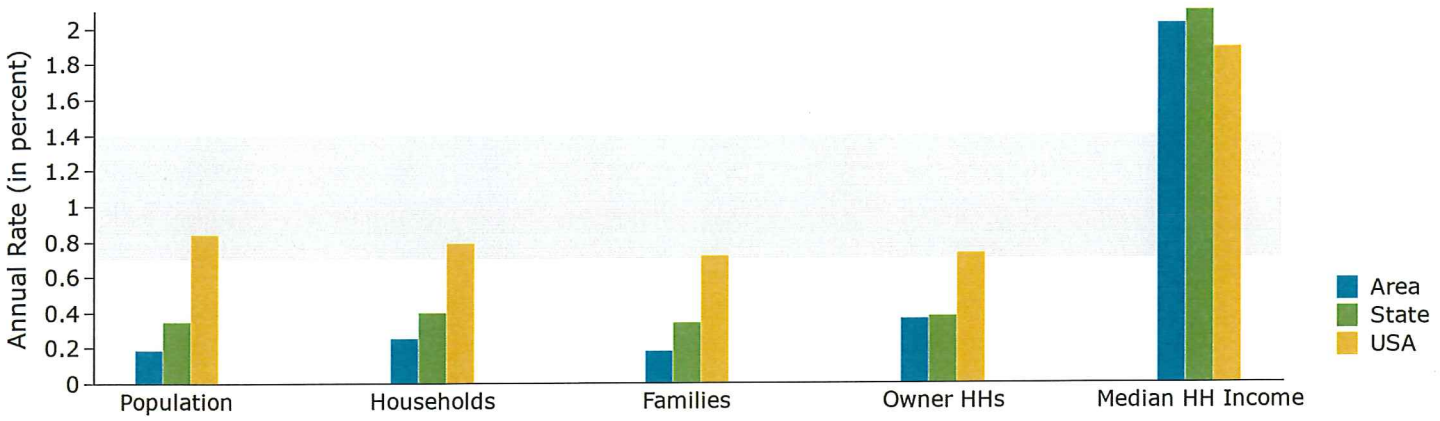
November 14, 2016

Demographic and Income Profile

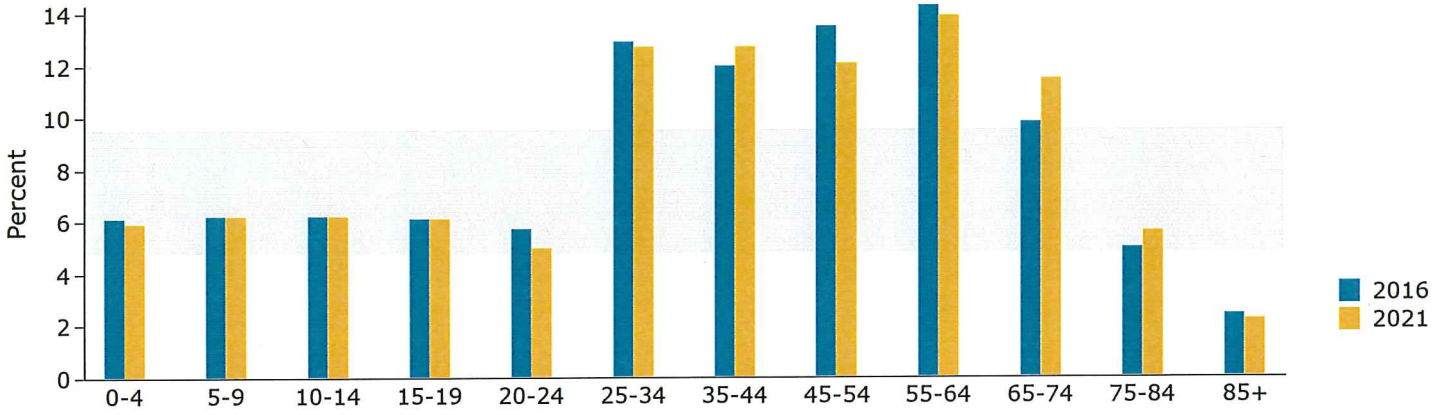
Hallie TN LF
X:-91.4460407 Y:44.8939064
Ring Band: 3 - 4 mile radius

Prepared by Esri
Latitude: 44.89391
Longitude: -91.44604

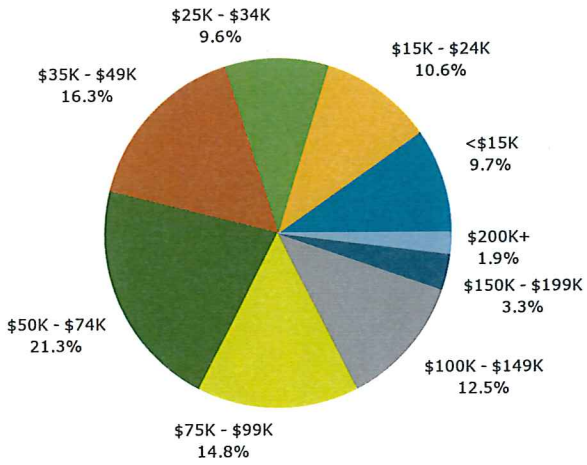
Trends 2016-2021



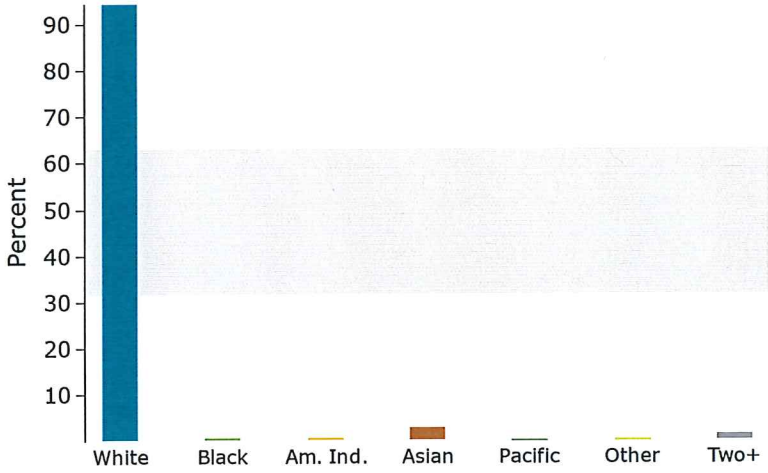
Population by Age



2016 Household Income



2016 Population by Race



2016 Percent Hispanic Origin: 1.5%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2016 and 2021.

November 14, 2016

Sources of Water Supply - Well Information

- Enter characteristics for each of the utility's functional wells (regardless of whether it is "in service" or not).
- Do not include abandoned wells on this schedule.
- All abandoned wells should be retired from the plant accounts and no longer listed in the utility's annual report.
- Abandoned wells should be permanently filled and sealed per Wisconsin Administrative codes Chapters NR811 and NR812.

	Utility Name/ID for Well (a)	DNR Well ID (b)	Depth (feet) (c)	Casing Diameter (inches) (d)	Yeild Per Day (gallons) (e)	In Service? (f)	
1	East Well Field #1	BF290	40	24	173,008	Yes	1
2	East Well Field #2	BF291	48	24	184,542	Yes	2
3	East Well Field #3	BF292	54	24	261,701	Yes	3
4	East Well Field #4	BF293	63	24	310,211	Yes	4
5	East Well Field #5	BF294	90	24	340,978	Yes	5
6	East Well Field #6	EJ775	58	16	378,751	Yes	6
7	West Well Field #1	DG421	53	36	417,849	Yes	7
8	West Well Field #2	BF296	60	36	244,477	Yes	8
9	West Well Field #3	NV227	60	20	350,995	Yes	9
10					**2,662,512**		10

QuickFacts

Chippewa County, Wisconsin

QuickFacts provides statistics for all states and counties, and for cities and towns with a ***population of 5,000 or more***.

ALL TOPICS	CHIPPEWA COUNTY, WISCONSIN
People	
Population	
Population estimates, July 1, 2015, (V2015)	63,531
Population estimates base, April 1, 2010, (V2015)	62,505
Population, percent change - April 1, 2010 (estimates base) to July 1, 2015, (V2015)	1.6%
Population, Census, April 1, 2010	62,415
Age and Sex	
Persons under 5 years, percent, July 1, 2015, (V2015)	5.6%
Persons under 5 years, percent, April 1, 2010	6.6%
Persons under 18 years, percent, July 1, 2015, (V2015)	22.6%
Persons under 18 years, percent, April 1, 2010	23.6%
Persons 65 years and over, percent, July 1, 2015, (V2015)	16.7%
Persons 65 years and over, percent, April 1, 2010	14.3%
Female persons, percent, July 1, 2015, (V2015)	48.2%
Female persons, percent, April 1, 2010	48.1%
Race and Hispanic Origin	
White alone, percent, July 1, 2015, (V2015) (a)	95.2%
White alone, percent, April 1, 2010 (a)	95.3%
Black or African American alone, percent, July 1, 2015, (V2015) (a)	1.6%
Black or African American alone, percent, April 1, 2010 (a)	1.6%
American Indian and Alaska Native alone, percent, July 1, 2015, (V2015) (a)	0.6%
American Indian and Alaska Native alone, percent, April 1, 2010 (a)	0.5%
Asian alone, percent, July 1, 2015, (V2015) (a)	1.4%
Asian alone, percent, April 1, 2010 (a)	1.2%
Native Hawaiian and Other Pacific Islander alone, percent, July 1, 2015, (V2015) (a)	0.1%
Native Hawaiian and Other Pacific Islander alone, percent, April 1, 2010 (a)	Z
Two or More Races, percent, July 1, 2015, (V2015)	1.1%
Two or More Races, percent, April 1, 2010	1.0%
Hispanic or Latino, percent, July 1, 2015, (V2015) (b)	1.6%
Hispanic or Latino, percent, April 1, 2010 (b)	1.3%
White alone, not Hispanic or Latino, percent, July 1, 2015, (V2015)	93.9%
White alone, not Hispanic or Latino, percent, April 1, 2010	94.6%
Population Characteristics	
Veterans, 2010-2014	5,208
Foreign born persons, percent, 2010-2014	1.2%
Housing	
Housing units, July 1, 2015, (V2015)	27,829
Housing units, April 1, 2010	27,185
Owner-occupied housing unit rate, 2010-2014	72.0%
Median value of owner-occupied housing units, 2010-2014	$147,300
Median selected monthly owner costs -with a mortgage, 2010-2014	$1,235
Median selected monthly owner costs -without a mortgage, 2010-2014	$456
Median gross rent, 2010-2014	$710
Building permits, 2015	267
Families and Living Arrangements	
Households, 2010-2014	24,643
Persons per household, 2010-2014	2.47
Living in same house 1 year ago, percent of persons age 1 year+, 2010-2014	87.4%
Language other than English spoken at home, percent of persons age 5 years+, 2010-2014	3.3%
Education	
High school graduate or higher, percent of persons age 25 years+, 2010-2014	91.4%
Bachelor's degree or higher, percent of persons age 25 years+, 2010-2014	19.2%
Health	
With a disability, under age 65 years, percent, 2010-2014	8.8%
Persons without health insurance, under age 65 years, percent	⚠ 8.2%
Economy	
In civilian labor force, total, percent of population age 16 years+, 2010-2014	65.8%
In civilian labor force, female, percent of population age 16 years+, 2010-2014	64.8%
Total accommodation and food services sales, 2012 ($1,000) (c)	70,027

Willkom, Mae - DNR

From: Derek Schad <Dschad@lakehallie.us>
Sent: Wednesday, November 16, 2016 4:41 PM
To: Willkom, Mae - DNR
Subject: RE: Lake Hallie Well Info
Attachments: Services by Meter Size.pdf

Mae,

Sorry about the 47 pages you have to go through to get the number of services. The totals are on the bottom of the sheets.

The amount that each well pumped in 2015 is as follows:
Well # 1- 12,709,000 gallons
Well # 2- 27,459,000 gallons
Well # 3- 33,212,000 gallons
Well # 4- 49,505,000 gallons

If you have any other questions, please feel free to give me a call.

Thanks

Derek Schad
Lead Water Operator
Cell: 715-559-7019

Village of Lake Hallie
13136 30th Ave.
Chippewa Falls, WI 54729

From: Willkom, Mae - DNR [mailto:Mae.Willkom@wisconsin.gov]
Sent: Wednesday, November 16, 2016 1:51 PM
To: Derek Schad
Subject: Lake Hallie Well Info

Hi, Derek.

As we discussed, I am looking for the number of water service connections which are supplied by the four Village of Lake Hallie wells, as well as how much water each well pumps per year.

Thanks very much for your time on the phone today and for gathering this information for me.

Mae

Mae E. Willkom
Hydrogeologist—Remediation and Redevelopment
Wisconsin Department of Natural Resources

Sources of Water Supply - Well Information

- Enter characteristics for each of the utility's functional wells (regardless of whether it is "in service" or not).
- Do not include abandoned wells on this schedule.
- All abandoned wells should be retired from the plant accounts and no longer listed in the utility's annual report.
- Abandoned wells should be permanently filled and sealed per Wisconsin Administrative codes Chapters NR811 and NR812.

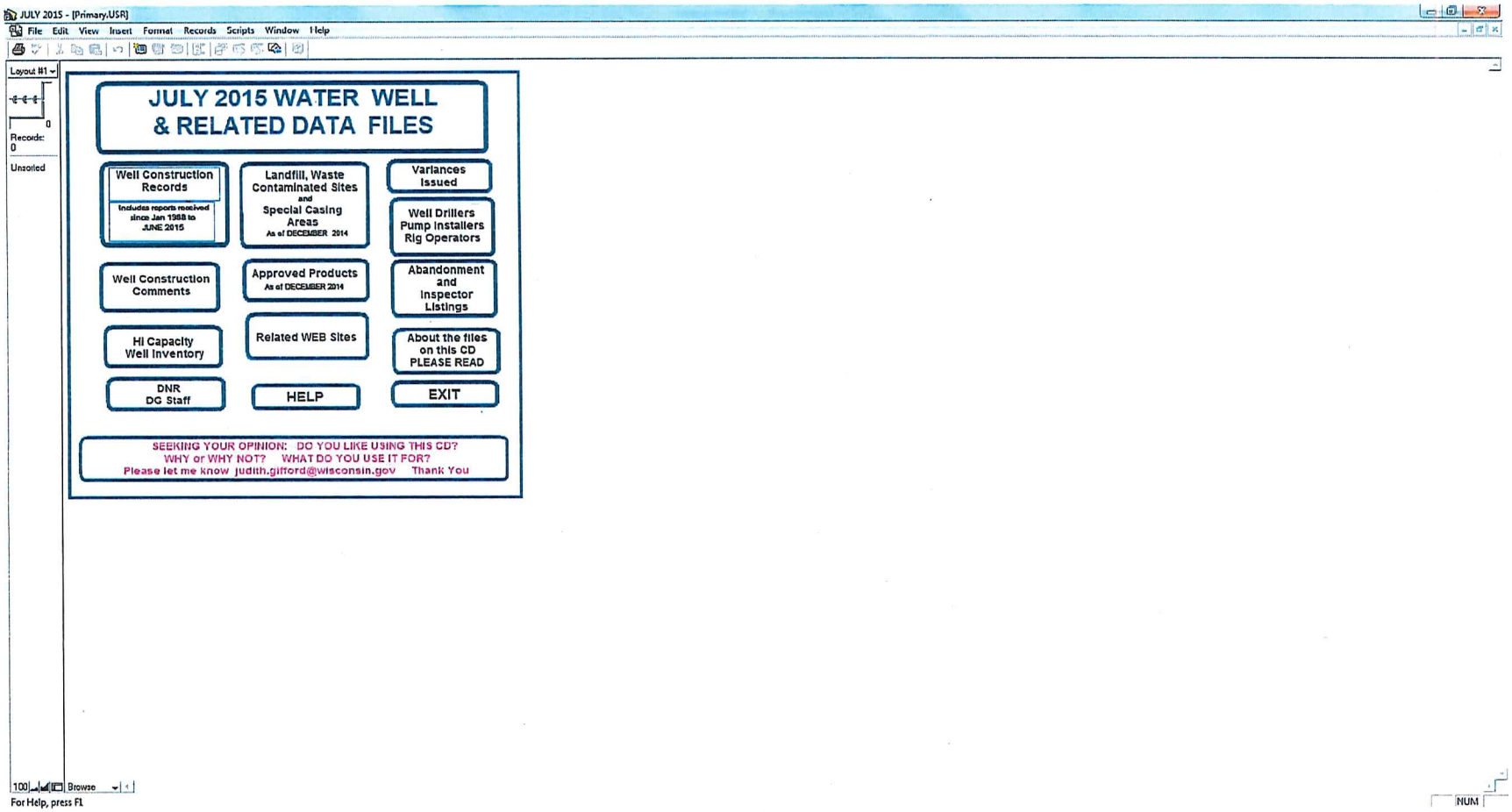
	Utility Name/ID for Well (a)	DNR Well ID (b)	Depth (feet) (c)	Casing Diameter (inches) (d)	Yeild Per Day (gallons) (e)	In Service? (f)	
04		BF763	85	16	700,000	Yes	1
06		BF764	84	20	1,000,000	Yes	2
08		BF765	90	20	1,210,000	Yes	3
09		BF766	95	20	2,000,000	Yes	4
10		BF767	95	20	1,000,000	Yes	5
11		BF768	90	20	1,070,000	Yes	6
12		BF769	89	20	2,300,000	Yes	7
13		BF770	95	20	1,300,000	Yes	8
14		BF771	101	16	1,870,000	Yes	9
15		BF299	88	16	1,300,000	Yes	10
16		BF772	99	20	1,050,000	Yes	11
17		BF773	100	20	1,900,000	Yes	12
18		BF774	105	20	2,300,000	Yes	13
19		DT804	98	20	1,470,000	Yes	14
21		EJ761	100	20	2,540,000	Yes	15
					23,010,000		16

QuickFacts

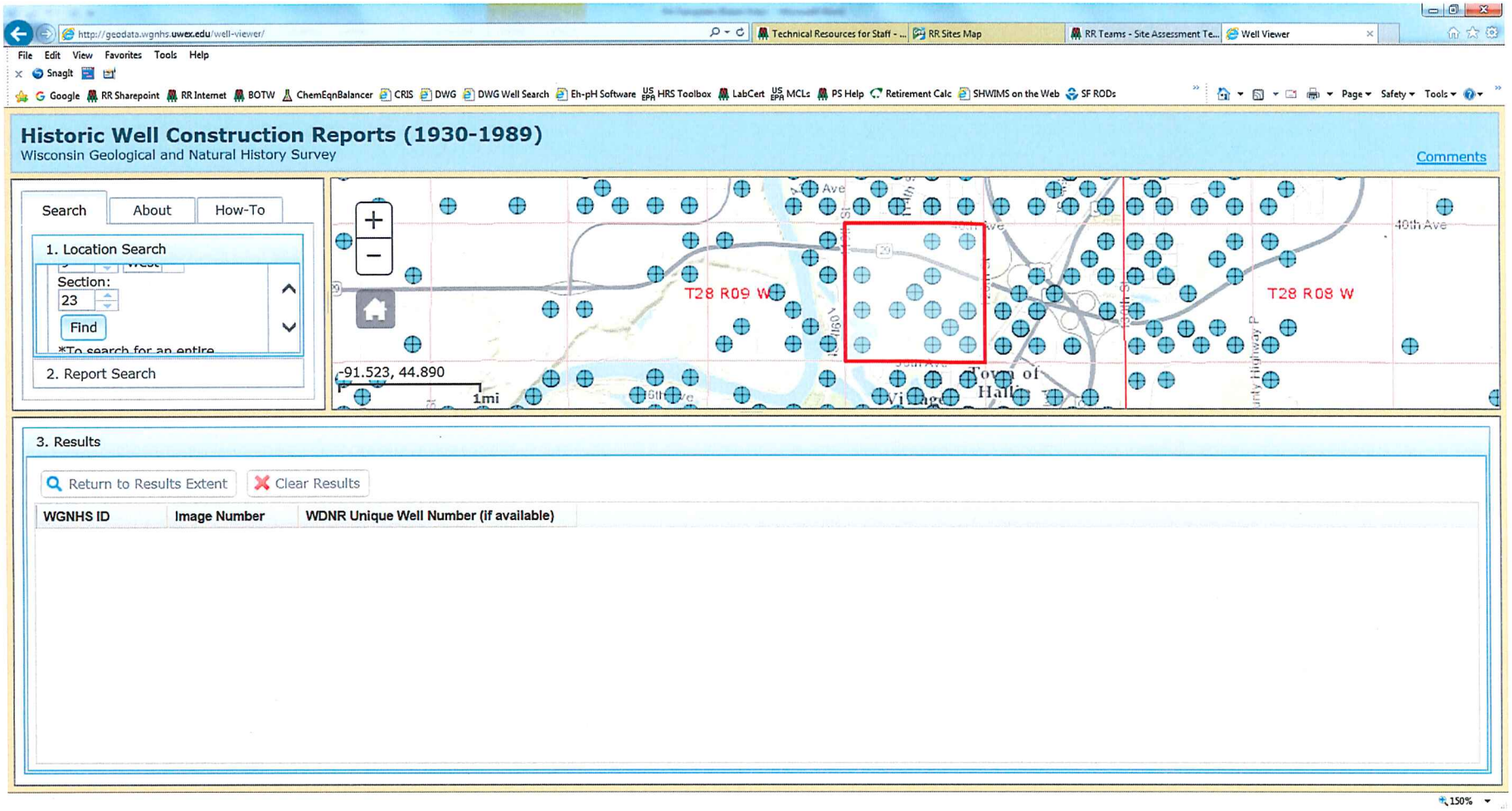
Eau Claire County, Wisconsin

QuickFacts provides statistics for all states and counties, and for cities and towns with a ***population of 5,000 or more***.

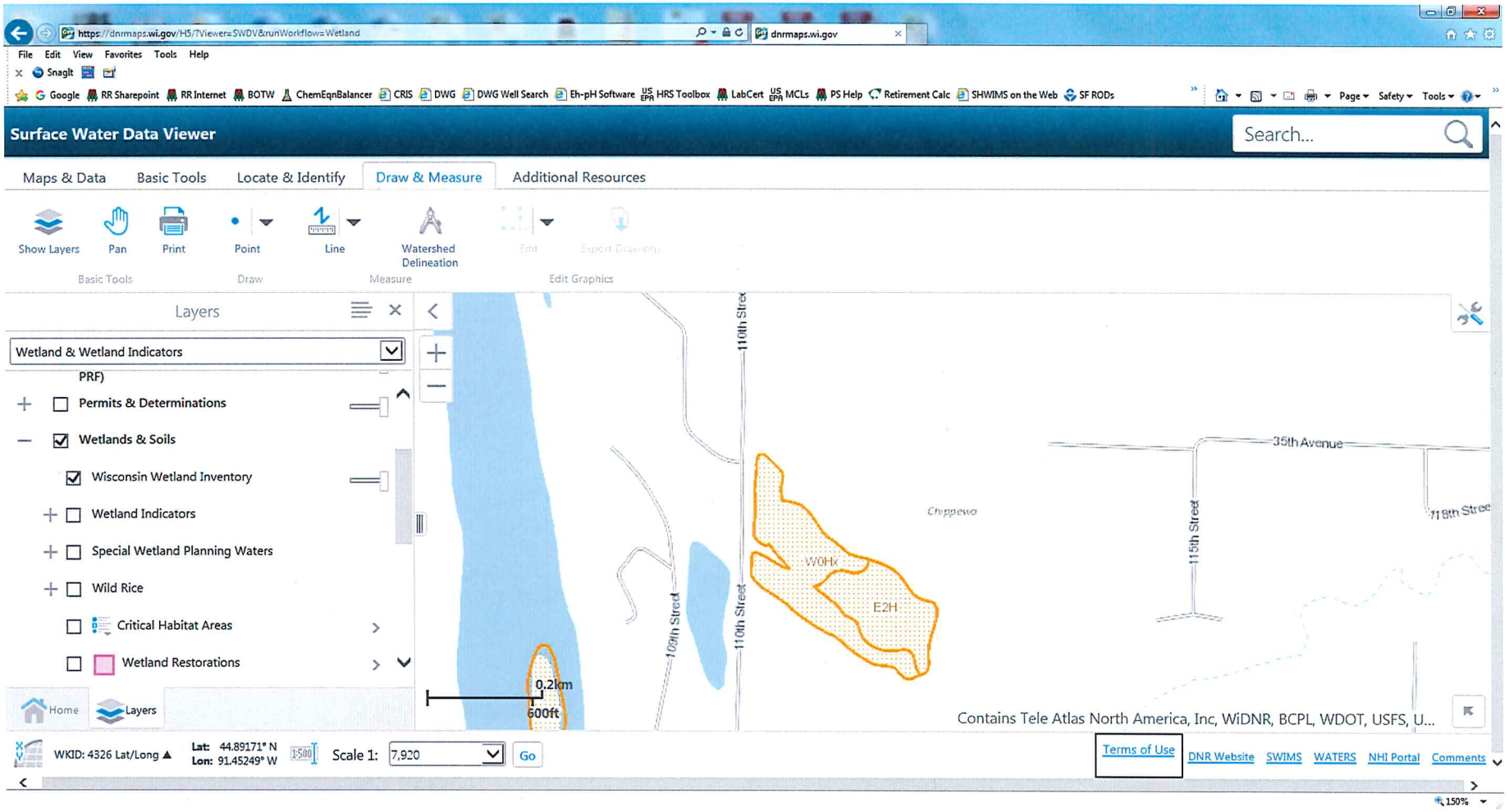
ALL TOPICS	EAU CLAIRE COUNTY, WISCONSIN
People	
Population	
Population estimates, July 1, 2015, (V2015)	102,105
Population estimates base, April 1, 2010, (V2015)	98,885
Population, percent change - April 1, 2010 (estimates base) to July 1, 2015, (V2015)	3.3%
Population, Census, April 1, 2010	98,736
Age and Sex	
Persons under 5 years, percent, July 1, 2015, (V2015)	5.9%
Persons under 5 years, percent, April 1, 2010	5.9%
Persons under 18 years, percent, July 1, 2015, (V2015)	20.5%
Persons under 18 years, percent, April 1, 2010	21.1%
Persons 65 years and over, percent, July 1, 2015, (V2015)	14.4%
Persons 65 years and over, percent, April 1, 2010	12.6%
Female persons, percent, July 1, 2015, (V2015)	50.5%
Female persons, percent, April 1, 2010	51.0%
Race and Hispanic Origin	
White alone, percent, July 1, 2015, (V2015) (a)	92.4%
White alone, percent, April 1, 2010 (a)	93.1%
Black or African American alone, percent, July 1, 2015, (V2015) (a)	1.1%
Black or African American alone, percent, April 1, 2010 (a)	0.9%
American Indian and Alaska Native alone, percent, July 1, 2015, (V2015) (a)	0.6%
American Indian and Alaska Native alone, percent, April 1, 2010 (a)	0.5%
Asian alone, percent, July 1, 2015, (V2015) (a)	4.0%
Asian alone, percent, April 1, 2010 (a)	3.3%
Native Hawaiian and Other Pacific Islander alone, percent, July 1, 2015, (V2015) (a)	0.1%
Native Hawaiian and Other Pacific Islander alone, percent, April 1, 2010 (a)	Z
Two or More Races, percent, July 1, 2015, (V2015)	1.8%
Two or More Races, percent, April 1, 2010	1.6%
Hispanic or Latino, percent, July 1, 2015, (V2015) (b)	2.3%
Hispanic or Latino, percent, April 1, 2010 (b)	1.8%
White alone, not Hispanic or Latino, percent, July 1, 2015, (V2015)	90.5%
White alone, not Hispanic or Latino, percent, April 1, 2010	92.1%
Population Characteristics	
Veterans, 2010-2014	6,842
Foreign born persons, percent, 2010-2014	3.0%
Housing	
Housing units, July 1, 2015, (V2015)	43,193
Housing units, April 1, 2010	42,151
Owner-occupied housing unit rate, 2010-2014	62.1%
Median value of owner-occupied housing units, 2010-2014	$149,300
Median selected monthly owner costs -with a mortgage, 2010-2014	$1,290
Median selected monthly owner costs -without a mortgage, 2010-2014	$479
Median gross rent, 2010-2014	$725
Building permits, 2015	410
Families and Living Arrangements	
Households, 2010-2014	40,072
Persons per household, 2010-2014	2.40
Living in same house 1 year ago, percent of persons age 1 year+, 2010-2014	81.3%
Language other than English spoken at home, percent of persons age 5 years+, 2010-2014	5.9%
Education	
High school graduate or higher, percent of persons age 25 years+, 2010-2014	93.2%
Bachelor's degree or higher, percent of persons age 25 years+, 2010-2014	31.1%
Health	
With a disability, under age 65 years, percent, 2010-2014	7.2%
Persons without health insurance, under age 65 years, percent	⚠ 8.6%
Economy	
In civilian labor force, total, percent of population age 16 years+, 2010-2014	69.7%
In civilian labor force, female, percent of population age 16 years+, 2010-2014	65.8%
Total accommodation and food services sales, 2012 ($1,000) (c)	206,568



WI DNR Bureau of Drinking Water and Groundwater Water Well Data Compact Diskette, July 2015.



http://geodata.wgnhs.uwex.edu/well-viewer/



https://dnrmaps.wi.gov/H5/?Viewer=SWDV&runWorkflow=Wetland

Coordinates: 44°52′33″N 91°26′27″W

Lake Hallie, Wisconsin

From Wikipedia, the free encyclopedia

Lake Hallie is a village in Chippewa County, Wisconsin, United States. It was incorporated from part of the Town of Hallie on February 18, 2003.[5] The 2010 census put the village's population at 6,448.

Contents

Lake Hallie, Wisconsin	
Village	
 Coordinates: 44°53′31″N 91°25′12″W	
Country	United States
State	Wisconsin
Counties	Chippewa
Government	
• **Type**	Village board
Area[1]	
• **Total**	14.57 sq mi (37.74 km^2)
• **Land**	14.09 sq mi (36.49 km^2)
• **Water**	0.48 sq mi (1.24 km^2)
Elevation	909 ft (277 m)
Population (2010)[2]	
• **Total**	6,448
• **Estimate** (2012[3])	6,536
• **Density**	457.6/sq mi (176.7/km^2)
Time zone	CST (UTC-6)
• **Summer (DST)**	CDT (UTC-5)
Area code(s)	715 & 534
GNIS feature ID	2013447[4]
Website	http://www.lakehallie.us/

History

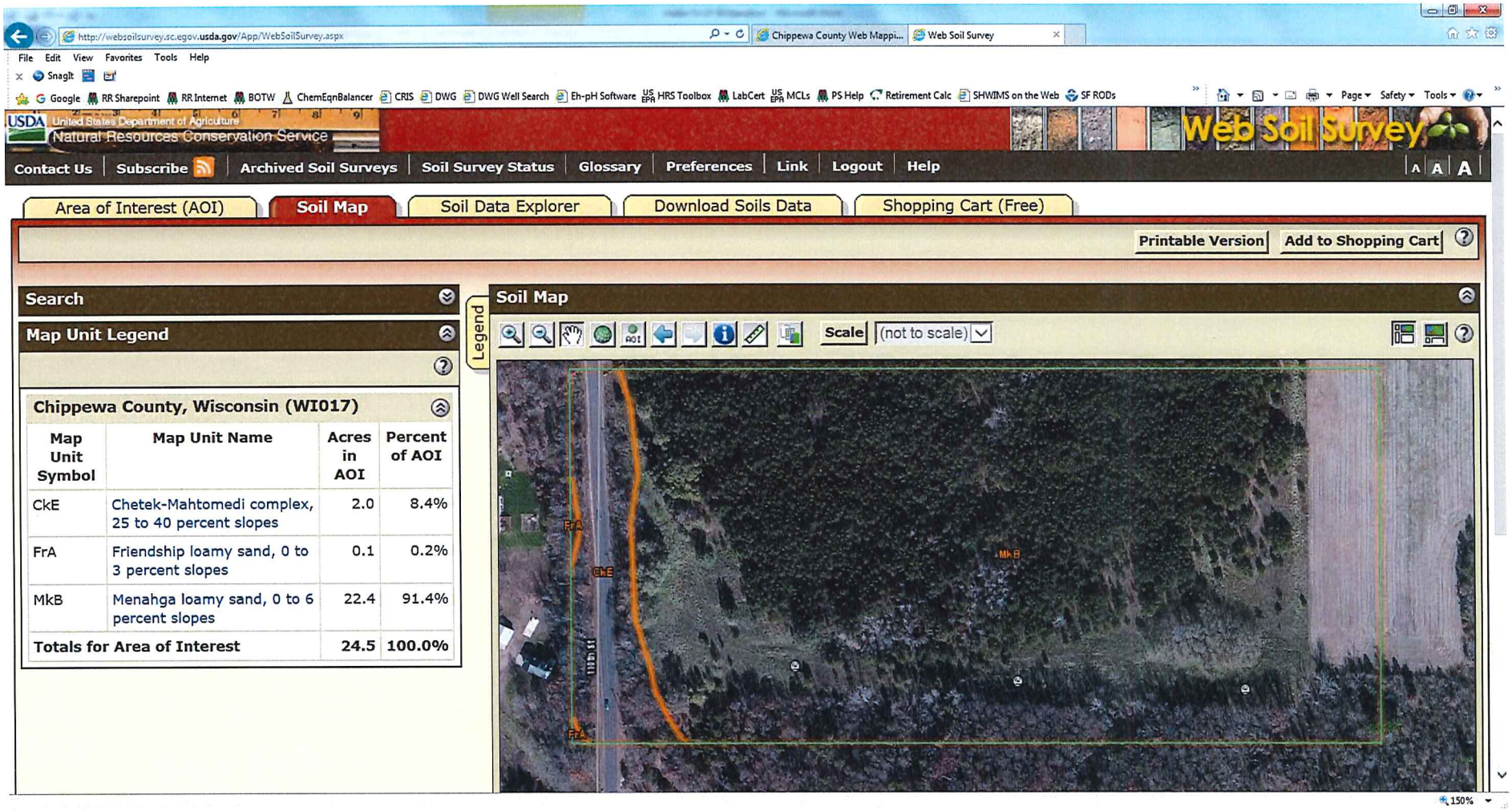
The lake, from which the village derives its name, is an oxbow lake near the Chippewa River between Eau Claire and Chippewa Falls. Here, in 1843, the McCann brothers joined with Jeremiah C. Thomas to build the Blue Mill, which used the lake as a holding pond for logs.[6] Later, after several changes of ownership and many improvements, this mill was acquired by the Badger State Lumber Company and became known as Badger Mills. Its operations were discontinued in the 1890s due to a shortage of logs.

In an open effort to prevent further annexation and utility encroachment by the cities of Chippewa Falls from the northeast and Eau Claire from the southwest, the village was incorporated by referendum from a large portion of the Town of Hallie on February 28, 2003. Over 95% of the Town of Hallie's residents in 2000 lived within the new village.[7] The village has experienced substantial growth since its incorporation; its 2010 population was 6,448, a 37.1% increase over the Town of Hallie's 2000 population of 4,703.

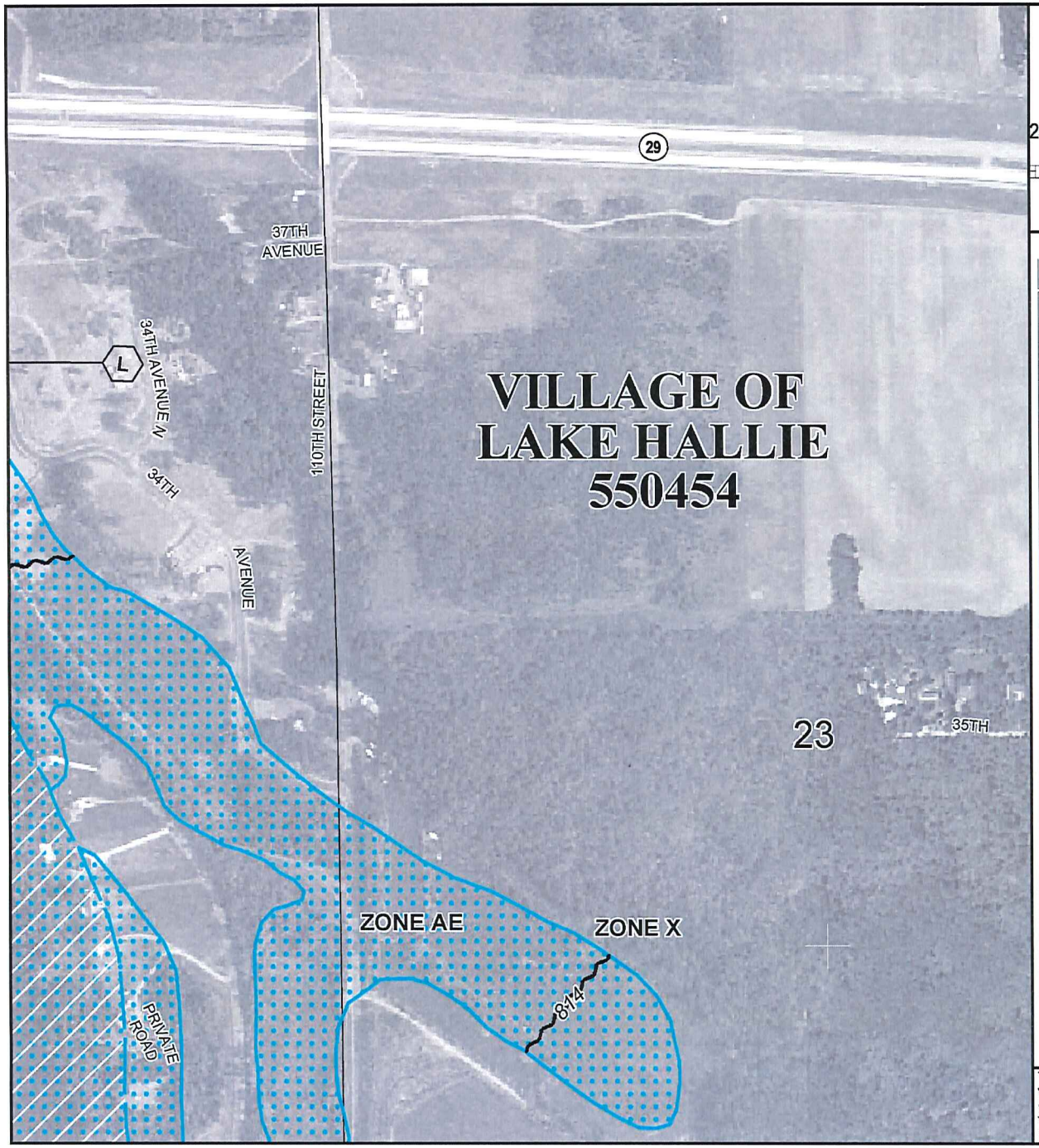
Geography

Lake Hallie is bordered on the north by Chippewa Falls, the south by Eau Claire and the Town of Seymour, west by the Chippewa River, on the southeast by the Town of Hallie, and on the east by the Town of Lafayette.[8]

According to the United States Census Bureau, the village has a total area of 14.57 square miles (37.74 km^2), of which 14.09 square miles (36.49 km^2) is land and 0.48 square miles (1.24 km^2) is water.[1]



http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx



MAP SCALE 1" = 500'

250 0 500 1000 FEET

METE

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0564E

FIRM

FLOOD INSURANCE RATE MAP

CHIPPEWA COUNTY, WISCONSIN

AND INCORPORATED AREAS

PANEL 564 OF 850

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHIPPEWA COUNTY	555549	0564	E
LAKE HALLIE, VILLAGE OF	550454	0564	E
EAU CLAIRE, CITY OF	550128	0564	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
55017C0564E

EFFECTIVE DATE
MARCH 2, 2010

Federal Emergency Management Agency

U.S. Fish & Wildlife Service

Search ECOS

ECOS Environmental Conservation Online System

Conserving the Nature of America

ECOS / Species Reports / Species By County Report

Species By County Report

The following report contains Species that are known to or are believed to occur in this county. Species with range unrefined past the state level are now excluded from this report. If you are looking for the Section 7 range (for Section 7 Consultations), please visit the IPaC application.

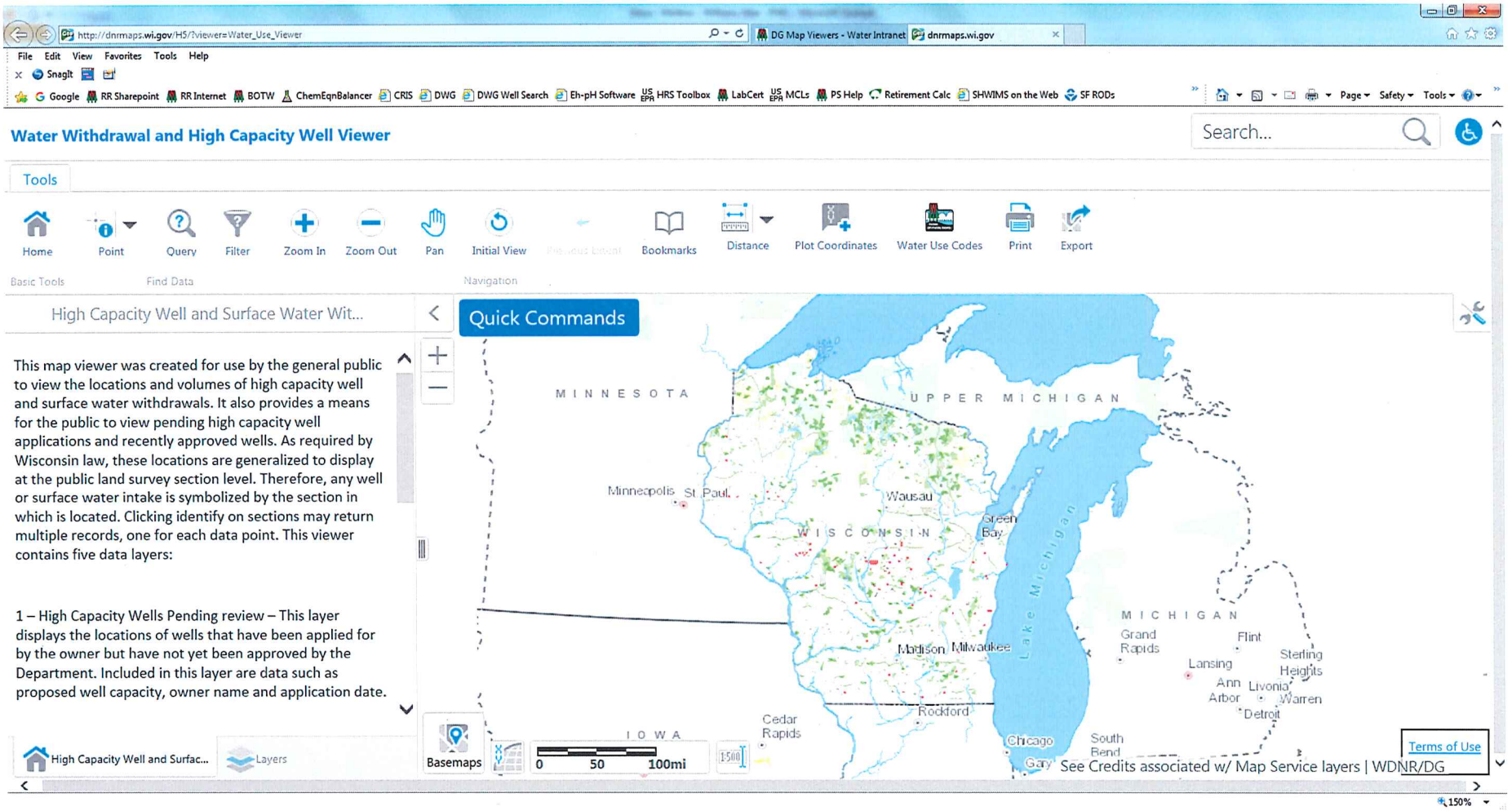
County: Chippewa, Wisconsin

CSV

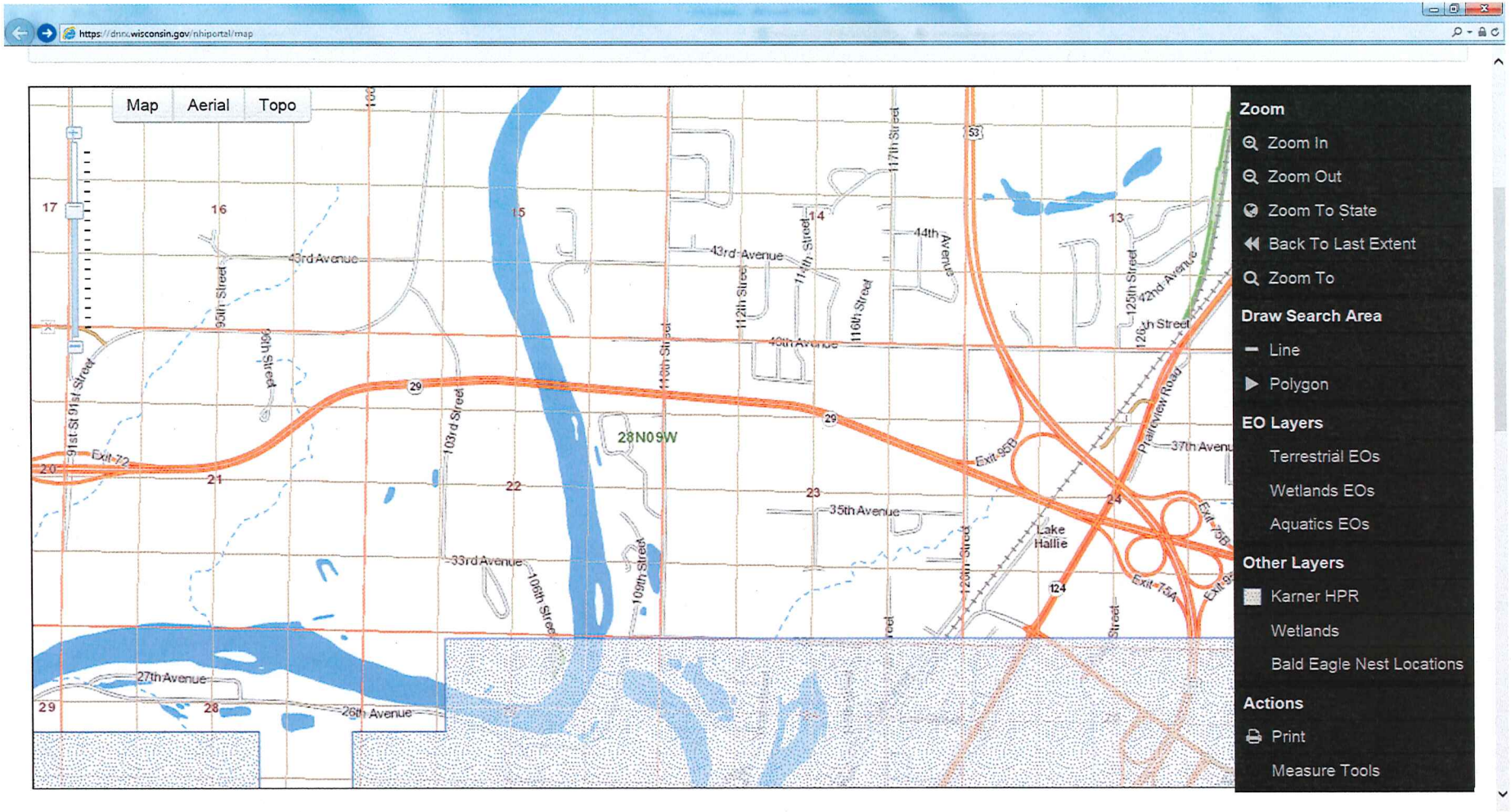
Need to contact a FWS field office about a species? Follow this link to find your local FWS Office.

Group	Name	Population	Status	Lead Office	Recovery Plan	Recovery Plan Action Status	Recc Plan Stag
Clams	Spectaclecase (mussel) (*Cumberlandia monodonta*)	Wherever found	Endangered	Twin Cities Ecological Services Field Office			
Insects	Karner blue butterfly (*Lycaeides melissa samuelis*)	Wherever found	Endangered	Twin Cities Ecological Services Field Office	Recovery Plan for the Karner Blue Butterfly	Implementation Progress	Final

Group	Name	Population	Status	Lead Office	Recovery Plan	Recovery Plan Action Status	Recc Plan Stag
Mammals	Gray wolf (*Canis lupus*)	U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.	Endangered	Assistant Regional Director-Ecological Services			
Mammals	Northern Long-Eared Bat (*Myotis septentrionalis*)	Wherever found	Threatened	Twin Cities Ecological Services Field Office			



http://dnrmaps.wi.gov/H5/?viewer=Water_Use_Viewer



https://dnrx.wisconsin.gov/nhiportal/map

__CONFIDENTIAL__

OPTIONAL ATTACHMENT 1